Index to Volume 106–1996
and Supplements: 77–82

# THE Laryngoscope

FOUNDED IN 1896

Editor: Byron J. Bailey, MD

Publisher: The American Laryngological, Rhinological and Otological Society, Inc.
10 S. Broadway, St. Louis, MO 63102

# AUTHOR/TITLE


## A

Abaza, MM, Makariou, E, Armstrong, M, Lalwani, AK: Growth Rate Characteristics of Acoustic Neuromas Associated With Neurofibromatosis Type 2 ..... 694
Abraham, SS, Wallace, IF, Gravel, JS: Early Otitis Media and Phonological Development at Age 2 Years ..... 727
Absorption of Topical Cocaine in Rhinologic Procedures CDR(sel)—Greinwald JH Jr, Holtel, CDR MR ..... 1223
Acid-Induced Laryngospasm in a Canine Model—Loughlin, CJ, Koufman, JA, et al. ..... 1506
Acoustic Reflexes, Auditory Brainstem Response, and MRI in the Evaluation of Acoustic Neuromas—Burkey, JM, Rizer, FM, et al. ..... 839
Acquired Maxillary Sinus Hypoplasia: A Consequence of Endoscopic Sinus Surgery?—Kosko, JR, Hall, BE, et al. ..... 1210
Adams, SG, Durkin, LC, Irish, JC, Wong, DLH, Hunt, EJ: Effects of Botulinum Toxin Type A Injections on Aerodynamic Measures of Spasmodic Dysphonia ..... 296
Advances in the Development of the Interferometric Otoscope—Parnes, SM, Cacace, AT, et al. ..... 263
Age Dependency of the Composition of Immunocompetent Cells and the Expression of Adhesion Molecules in Rat Laryngeal Mucosa—Jecker, P, Ptok, M, et al. ..... 733
Age of the Medical Education Revolution—Alford, BR ..... 801
Age-Related Alterations in the Auditory Brainstem Responses and the Compound Action Potentials in Guinea Pigs—Nozawa, I, Imamura, S-I, et al. ..... 1034
Aggressive Papillary Tumors of the Temporal Bone: An Immunohistochemical Analysis in Tissue Culture—Levin, RL, Feghali, JG, et al. ..... 144
Aging of the Normal Nose in Adults—Edelstein, DR ..... Suppl 81
Aguilar, EF III: Auricular Reconstruction of Congenital Microtia (Grade III) ..... Suppl 82
Alford and Guilford: "A Comprehensive Study of Tumors of the Glomus Jugulare" (LARYNGOSCOPE 1962;72:765–787)—Pensak, ML ..... 1063
Alford, BR: Age of the Medical Education Revolution ..... 801
Alford, BR: Pursuit of Excellence—Is It Still Possible? ..... 1266
Alper, CM, Doyle, WJ, Skoner, DP, Buchman, CA, Seroky, JT, Gwaltney, JM, Cohen, SA: Prechallenge Antibodies: Moderators of Infection Rate, Signs, and Symptoms in Adults Experimentally Challenged With Rhinovirus Type 39 ..... 1298
Alternating Unilateral Botulinum Toxin Type A (BOTOX®) Injections for Spasmodic Dysphonia—Koriwchak, MJ, Netterville, JL, et al. ..... 1476
Amble, FR, Kern, EB, Neel, HB III, Facer, GW, McDonald, TJ, Czaja, JM: Nasofrontal Duct Reconstruction With Silicone Rubber Sheeting for Inflammatory Frontal Sinus Disease: Analysis of 164 Cases ..... 809
Ambulatory Tonsillectomy and Adenoidectomy—Gabalski, EC, Mattucci, KF, et al. ..... 77
Angiography and Transcatheter Arterial Embolization of Vascular Injuries of the Face and Neck—Sclafani, AP, Sclafani, SJA . 168
Antifungal Activity Against Allergic Fungal Sinusitis Organisms—Bent JP III, Kuhn, FA ..... 1331
Apneic Anesthesia With Intermittent Ventilation for Microsurgery of the Upper Airway—Weisberger, EC, Emhardt, JD .. 1099
Application of Telemedicine Technology for Otorhinolaryngology Diagnosis—Crump, WJ, Driscoll, B ..... 595
Arriaga, LTC MA, Gorum, MAJ M: Indications and Variations of Transcochlear Exposure of the Ventral Brainstem ..... 639
Arsenauro, 1901–1904 ..... 928
Association of Mitochondrial DNA Deletions and Cochlear Pathology: A Molecular Biologic Tool—Seidman, MD, Bai, U, et al. .. 777
Association of Otitis Media With Effusion and Allergy as Demonstrated by Intradermal Skin Testing and Eosinophil Cationic Protein Levels in Both Middle Ear Effusions and Mucosal Biopsies—Hurst, DS ..... 1128
Asymmetry in the Nasal Mucociliary Transport Rate—Nuutinen, J ..... 1424
Atlas, MD, Perez de Tagle, JRV, Cook, JA, Sheehy, JP, Fagan, PA: Evolution of the Management of Hydrocephalus Associated With Acoustic Neuroma ..... 204
Auditory Findings in Patients with Maternally Inherited Diabetes and Deafness Harboring a Point Mutation in the Mitochondrial Transfer RNA$^{Leu(UUR)}$ Gene—Yamasoba, T, Oka, Y, et al. ..... 49
Auricular Reconstruction of Congenital Microtia (Grade III)—Aguilar, EF III ..... Suppl 82
Avascular Tympanojugular Paraganglioma—Balli, R, Dallari, S, et al. ..... 721

## B

Bailey, BJ, et al.: John Conley, MD: An Issue of Special Recognition ..... 385
Bailey, BJ: Edmund Prince Fowler: Linking Basic and Clinical Science ..... 1457
Bailey, BJ: Harris P. Mosher Award: A Legacy of Excellence ..... 1317
Bailey, BJ: Laryngology Education at the Turn of the Century ... 797
Bailey, BJ: LARYNGOSCOPE—The First 100 Years ..... 527
Bailey, BJ: Laryngoscopy and Laryngoscopes—Who's First?: The Forefathers/Four Fathers of Laryngology ..... 939
Bailey, BJ: Looking Back at a Century of Cocaine—Use and Abuse 681
Bailey, BJ: Status of Otolaryngology in the Post–World War II Era. Part 1—Defining the Problem ..... 1053
Bailey, BJ: Status of Otolaryngology in the Post–World War II Era. Part 2—A Look to the Future ..... 1191
Bailey, BJ: Tribute to Max Goldstein, MD, Founder and Editor of The LARYNGOSCOPE ..... 535
Bailey, BJ: What's All the Fuss About?: The LARYNGOSCOPE Pages Cause an International Incident ..... 925
Ball, SS, Prazma, J, Dais, CGD, Rosbe, KW, Pillsbury, HC III: Nitric Oxide: A Mediator of Endotoxin-Induced Middle Ear Effusions ..... 1021
Balli, R, Dallari, S, Bergamini, G, Maiorana, A: Avascular Tympanojugular Paraganglioma ..... 721
Basic Innervation Pattern and Distribution of Classic Autonomic Neurotransmitters in Human Nasal Mucosal Vasculature—Riederer, A, Fischer, A, et al. ..... 286
Bastian, RW, Delsupehe, KG: Indirect Larynx and Pharynx Surgery: A Replacement for Direct Laryngoscopy ..... 1280
Bent, JP III, Kuhn, FA: Antifungal Activity Against Allergic Fungal Sinusitis Organisms ..... 1331
Berinstein, LCDR TH, Bernstein, P: Turbinate Flap for Reconstruction of Nasal Septal Mucosal Defects ..... 1047
Bertrand, B, Doyen, A, Eloy, P: Triosite Implants and Fibrin Glue in the Treatment of Atrophic Rhinitis: Technique and Results . 652
Beta-2 Transferrin: Limitations of Use As a Clinical Marker for Perilymph—Levenson, MJ, Desloge, RB, et al. ..... 159
Biedlingmaier, JF, Whelan, P, Zoarski, G, Rothman, M: Histopathology and CT Analysis of Partially Resected Middle Turbinates ..... 102
Bigelow, DC, Swanson, PB, Saunders, JC: Effect of Tympanic Membrane Perforation Size on Umbo Velocity in the Rat ..... 71
Bigenzahn, W, Hoefler, H: Minimally Invasive Laser Surgery for the Treatment of Bilateral Vocal Cord Paralysis ..... 791
Bilateral Sensorineural Hearing Loss Associated With the Point Mutation in Mitochondrial Genome—Oshima, T, Ueda, N, et al. 43
Bluestone, et al.: "Audiometry and Tympanometry in Relation to Middle Ear Effusions in Children" (LARYNGOSCOPE 1973;83: 594-604)—Meyerhoff, WL ..... 684
Boettcher, FA: Diltiazem Does Not Protect the Ear from Noise-Induced Hearing Loss in Mongolian Gerbils ..... 772
Bottrill, I, Perrault, DF Jr, Poe, D: *In Vitro* and *In Vivo* Determination of the Thermal Effect of Middle Ear Endoscopy ..... 213
Brain-Derived Neurotrophic Factor and Peripheral Nerve Regeneration: A Functional Evaluation—Shirley, DM, Williams, SA, et al. ..... 629
Brainstem Auditory Evoked Potentials in Patients With Ischemic Heart Disease—Karamitsos, DG, Kounis, NG, et al. ..... 54
Brandenburg, JH, Unger, JM, Koschkee, D: Vocal Cord Injection With Autogenous Fat: A Long-term Magnetic Resonance Imaging Evaluation ..... 174
Brewster, D, Cupp, C, Wester, DC: Effects of Macrophages on the Survival of Random Skin Flaps in Swine ..... 1094
Broker, BJ, Rosen, D, Amsberry, J, Schmidt, R, Sailor, L, Pribitkin, EA, Keane, WM: Keloid Excision and Recurrence

Prophylaxis Via Intradermal Interferon-Gamma Injections: A Pilot Study ..... 1497
Broniatowski, M, Vito, KJ, Shah, B, Shields, RW, Secic, M, Dessoffy, R, Strome, M: Contraction Patterns of Intrinsic Laryngeal Muscles Induced by Orderly Recruitment in the Canine ..... 1510
Brook, I, Frazier, EH: Microbiology of Subperiosteal Orbital Abscess and Associated Maxillary Sinusitis ..... 1010
Brown, OE, Pownell, P, Manning, SC: Choanal Atresia: A New Anatomic Classification and Clinical Management Applications ..... 97
Bryant, NJ, Gracco, LC, Sasaki, CT, Vining, E: MRI Evaluation of Vocal Fold Paralysis Before and After Type I Thyroplasty ..... 1386
Buchman, CA, Chen, DA, Flannagan, P, Wilberger, JE, Maroon, JC: Learning Curve for Acoustic Tumor Surgery ..... 1406
Bujía, J, Holly, A, Antolí-Candela, F, Tapia, MG, Kastenbauer, E: Immunobiological Peculiarities of Cholesteatoma in Children: Quantification of Epithelial Proliferation by MIB-1 ..... 865
Bujía, J, Kim, C, Boyle, D, Hammer, C, Firestein, G, Kastenbauer, E: Quantitative Analysis of Interleukin-1-Alpha Gene Expression in Middle Ear Cholesteatoma ..... 217
Bujía, J, Wilmes, E, Kastenbauer, E, Gürtler, L: Influence of Chemical Allograft Preservation Procedures on the Human Immunodeficiency Virus ..... 645
Bupivacaine for Postoperative Analgesia Following Endoscopic Sinus Surgery—Friedman, M, Venkatesan, TK, et al. ..... 1382
Burkey, JM, Rizer, FM, Schuring, AG, Fucci, MJ, Lippy, WH: Acoustic Reflexes, Auditory Brainstem Response, and MRI in the Evaluation of Acoustic Neuromas ..... 839
Burns, JA, Dodson, EE, Gross, CW: Transnasal Endoscopic Repair of Cranionasal Fistulae: A Refined Technique With Long-term Follow-up ..... 1080

## C

Cao, MY, Deggouj, N, Gersdorff, M, Tomasi, J-P: Guinea Pig Inner Ear Antigens: Extraction and Application to the Study of Human Autoimmune Inner Ear Disease ..... 207
Carrau, RL, Jho, H-D, Ko, Y: Transnasal-Transsphenoidal Endoscopic Surgery of the Pituitary Gland ..... 914
Cass, SP, Redfern, MS, Furman, JM, DiPasquale, JJ: Galvanic-Induced Postural Movements As a Test of Vestibular Function in Humans ..... 423
Cayé-Thomasen, P, Hermansson, A, Tos, M, Prellner, K: Pathogenesis of Middle Ear Adhesions ..... 463
Cerebrospinal Fluid Drainage in the Management of CSF Leak Following Acoustic Neuroma Surgery—Fishman, AJ, Hoffman, RA, et al. ..... 1002
Cervical Thymic Cyst: Case Reports and Review of the Literature— Nguyen, Q, deTar, M, et al. ..... 247
Characteristics of an In Vivo Canine Model of Phonation With a Constant Air Pressure Source—Nasri, S, Namazie, A, et al. ... 745
Characterization of Postoperative Edema Following Laser-Assisted Uvulopalatoplasty Using MRI and Polysomnography: Implications for the Outpatient Treatment of Obstructive Sleep Apnea Syndrome—Terris, DJ, Clerk, AA, et al. ..... 124
Chiu, LD, Barber, W, Chen, S-CA: J-Shaped, Conchal Excision With Rotation Advancement for Closure of Large, Auricular Wedge Defects ..... 116
Chiu, LD, Rasgon, BM, Cruz, RM: Laryngoscopic Placement of Laryngeal Keels With Percutaneous Fixation ..... 788
Choanal Atresia: A New Anatomic Classification and Clinical Management Applications—Brown, OE, Pownell, P, et al. ..... 97
Chronic Rhinocerebral Mucormycosis—Harrill, WC, Stewart, MG, et al. ..... 1292
Citardi, MJ, Abrahams, JJ, Flynn, S, Sasaki, CT: Efficacy of Transcutaneous Computed Tomography–Guided Fine Needle Aspiration Biopsy in Patients With Laryngeal Squamous Cell Carcinoma, Probable Failed Radiation Therapy, and Negative Transmucosal Biopsies ..... 1244
Clerico, DM: Pneumatized Superior Turbinate as a Cause of Referred Migraine Headache ..... 874
Closure of the Fibula Free Flap Donor Site With the Sure-Closure™ Skin-Stretching Device—Futran, ND ..... 1487
Clymer, MA, Schwaber, MK, Davidson, JM: Effects of Keratinocyte Growth Factor on Healing of Tympanic Membrane Perforations ..... 280
Cochlear Implantation in a Pacemaker Patient—Triglia, J-M, Beliaeff, M, et al. ..... 1184
Cochlear Implantation in Radical Cavities of Mastoidectomy—Manrique, M, Cervera-Paz, FJ, et al. ..... 1562
Coleman, JR Jr, Duncavage, DA: Extended Middle Meatal Antrostomy: The Prevention of Circular Flow ..... 1214
Combined Endoscopic $CO_2$ Laser and External Approach for Treatment of Glottic Cancer Involving the Anterior Commissure: An Animal Study—Shapshay, SM, Wang, Z, et al. ..... 273
Communicating Vein and Its Use in the Radial Forearm Free Flap—Valentino, J, Funk, GF, et al. ..... 648
Comparison of Clinical Evaluation and Computed Tomographic Diagnostic Accuracy for Tumors of the Larynx and Hypopharynx—Thabet, HM, Sessions, DG, et al. ..... 589
Comparison of Labyrinthectomy and Vestibular Neurectomy in the Control of Vertigo—Gacek, RR, Gacek, MR ..... 225
Computer-Assisted Clinimetric Tool for the Study of Facial Expression: A Pilot Validity Study—Holman, ML, Neely, JG, et al. 135
Contraction Patterns of Intrinsic Laryngeal Muscles Induced by Orderly Recruitment in the Canine—Broniatowski, M, Vito, KJ, et al. ..... 1510
Contraptions ..... 1204
Cook, SP: Examination Room Design for the Pediatric Otolaryngology Practice ..... 1049
Corbridge, RJ, Harries, MLL: New Method of Applying External Laryngeal Pressure During Microlaryngeal Surgery: The Laryngeal Strap ..... 499
Cost Utility of the Multichannel Cochlear Implant in 258 Profoundly Deaf Individuals—Wyatt, JR, Niparko, JK, et al. ..... 816
Coste, A, Wang, Q-P, Roudot-Thoraval, F, Chapelin, C, Bedbeder, P, Poron, F, Peynègre, R, Escudier, E: Epithelial Cell Proliferation in Nasal Polyps Regulated By Platelet-Derived Growth Factor ..... 578
Cricoarytenoid Joint Mobility After Chronic Vocal Cord Paralysis—Gacek, M, Gacek, RR ..... 1528
Criteria for Success in Pediatric Functional Endonasal Sinus Surgery—Younis, RT, Lazar, RH ..... 869
Crumley, R: Turn of the Century Facial Plastic Surgeons and The LARYNGOSCOPE ..... 1199
Crump, WJ, Driscoll, B: Application of Telemedicine Technology for Otorhinolaryngology Diagnosis ..... 595
Cummings, CW: Requisites for Survival of Otolaryngology—Head and Neck Surgery ..... 1126

## D

Darrow, DH, Keithley, EM: Reduction of Endotoxin-Induced Inflammation of the Middle Ear by Polymyxin B ..... 1028
Davison, SP, Habermann, TM, Strickler, JG, DeRemee, RA, Earle, JD, McDonald, TJ: Nasal and Nasopharyngeal Angiocentric T-Cell Lymphomas ..... 139
de Mello-Filho, FV, Mamede, RCM, Velludo, MASL: Tracheal Neovascularization: A Method Involving Mobilization of a Complete Tracheal Neovascularized Segment Using a Sternohyoid Muscle Flap ..... 81
de Varebeke, SJ, Govaerts, PJ, Somers, T, Offeciers, FE: "Two-Hole" Ossiculoplasty Technique ..... 507
de Vincentiis, M, Minni, A, Gallo, A: Supracricoid Laryngectomy With Cricohyoidopexy (CHP) in the Treatment of Laryngeal Cancer: A Functional and Oncologic Experience ..... 1108
Decadose Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract II Clinical Studies—Robbins, KT, Storniolo, AM, et al. ..... 37
Decadose Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract I Histoculture Experiments—Robbins, KT, Hoffman, RM ..... 32
Delaere, PR, Liu, Z, Delanghe, G, Gyselen, K, Jorissen, M, Feenstra, L: Mucociliary Clearance Following Segmental Tracheal Reversal ..... 450
Depondt, J, Koka, VN, Nasser, T, Portier, F, Guedon, C, Barry, B, Gehanno, P: Use of Fibrin Glue in Parotidectomy Closure ..... 784
Derebery, MJ, Berliner, KI: Foot and Ear Disease—The Dermatophytid Reaction in Otology ..... 181
Deschler, DG, Singer, MI: Preservation of the Spinal Accessory Nerve in Modified Neck Dissections ..... 664
Detection of Epstein-Barr Virus in Salivary Gland Specimens from Sjögren's Syndrome Patients—Merne, MET, Syrjänen, SM ..... 1534
Determination of the Efficacy of Topical Oral Pilocarpine for Postirradiation Xerostomia in Patients With Head and Neck

Carcinoma—Hamlar, DD, Schuller, DE, et al. ..... 972
Deutsch, ES, Smergel, E, Crisci, K, Panitch, H: Tracheobronchography in Children ..... 1248
Development of the 12-Item Cross-Cultural Smell Identification Test (CC-SIT)—Doty, RL, Marcus, A, et al. ..... 353
Development of the Facial Recess: Implications for Cochlear Implantation—Eby, TL ..... Suppl 80
Differential Effects of Retinoic Acid and N-(4-hydroxyphenyl)-retinamide on Head and Neck Squamous Cell Carcinoma Cells—Eicher, SA, Lotan, R ..... 1471
Differentiation Between Schwannoma of the Vagus Nerve and Schwannoma of the Cervical Sympathetic Chain by Imaging Diagnosis—Furukawa, M, Furukawa, MK, et al. ..... 1548
DiLeo, MD, Miller, RH, Rice, JC, Butcher, RB: Nasal Septal Squamous Cell Carcinoma: A Chart Review and Meta-analysis ..... 1218
Diltiazem Does Not Protect the Ear from Noise-Induced Hearing Loss in Mongolian Gerbils—Boettcher, FA ..... 772
Distortion Generated by the Ear: Its Emergence and Evolution During Development—Tubach, M, McGee, J, et al. ..... 822
Dolan, R, Gooey, J, Cho, YJ, Fuleihan, N: Microvascular Access in the Multiply Operated Neck: Thoracodorsal Transposition .... 1436
Doty, RL, Marcus, A, Lee, WW: Development of the 12-Item Cross-Cultural Smell Identification Test (CC-SIT) ..... 353
Double V-Y Subcutaneous Island Flap—Parell, GJ, Becker, GD .. 1434
Duffey, DC, Calcaterra, TC, Lichtenstein, A: Regulation of Transforming Growth Factor-β1–Mediated Apoptosis in Head and Neck Squamous Cell Carcinoma ..... 889
Duffey, DC, Eversole, LR, Abemayor, E: Oral Lichen Planus and Its Association With Squamous Cell Carcinoma: An Update on Pathogenesis and Treatment Implications ..... 357
Dündar, A, Özünlü, A, Sahan, M, Özgen, F: Lingual Tonsil Hypertrophy Producing Obstructive Sleep Apnea ..... 1167
Dunlevy, TM, O'Malley, TP, Postma, GN: Optimal Concentration of Epinephrine for Vasoconstriction in Neck Surgery ..... 1412

## E

Ear Candles—Efficacy and Safety—Seely, DR, Quigley, SM, et al. ..... 1226
Early Eyelid Rehabilitation in Facial Nerve Paralysis—Linder, TE, Pike, VE, et al. ..... 1115
Early Otitis Media and Phonological Development at Age 2 Years—Abraham, SS, Wallace, IF ..... 727
Easier Technique for Near-Total Laryngectomy—Moñux, A, Rabanal, I, et al. ..... 235
Eby, TL: Development of the Facial Recess: Implications for Cochlear Implantation ..... Suppl 80
Echo-Planar Magnetic Resonance Imaging of Deglutitive Vocal Fold Closure: Normal and Pathologic Patterns of Displacement—Gilbert, RJ, Daftary, S ..... 568
Edelstein, DR: Aging of the Normal Nose in Adults ..... Suppl 81
Edmund Prince Fowler Award—Sasaki, CT ..... 1463
Edmund Prince Fowler: Linking Basic and Clinical Science—Bailey, BJ ..... 1457
Effect of Cortisporin Otic Suspension on Cochlear Function and Efferent Activity in the Guinea Pig—Perry, BP, Smith, DW .... 1557
Effect of Hyperbaric Oxygenation on Existing Oral Mucosal Carcinoma—McDonald, KR, Bradfield, JJ, et al. ..... 957
Effect of Overall Treatment Time of Radiation Therapy on Local Control of T1-Stage Squamous Cell Carcinoma of the Glottis—Hayakawa, K, Mitsuhashi, N, et al. ..... 1545
Effect of Topical Vasodilating Agents on Microvascular Vessel Diameter in the Rat Model—Kerschner, JE, Futran, ND ..... 1429
Effect of Tympanic Membrane Perforation Size on Umbo Velocity in the Rat—Bigelow, DC, Swanson, PB, et al. ..... 71
Effect on the Nasal Mucosa of Long-Term Treatment with Oxymetazoline, Benzalkonium Chloride and Placebo Nasal Sprays—Graf, P, Hallén, H ..... 605
Effects of Botulinum Toxin Type A Injections on Aerodynamic Measures of Spasmodic Dysphonia—Adams, SG, Durkin, LC, et al. ..... 296
Effects of Keratinocyte Growth Factor on Healing of Tympanic Membrane Perforations—Clymer, MA, Schwaber, MK, et al. .. 280
Effects of Macrophages on the Survival of Random Skin Flaps in Swine—Brewster, D, Cupp, C, et al. ..... 1094
Effects of Middle Ear Oxygen and Carbon Dioxide Tensions on Eustachian Tube Ventilatory Function—Shupak, A, Tabari, R, et al. ..... 221
Effects of Oral and Systemic Immunization on Nasopharyngeal Clearance of Nontypeable *Haemophilus influenzae* in BALB/c Mice—Kurono, Y, Shigemi, H, et al. ..... 614
Efficacy of Transcutaneous Computed Tomography–Guided Fine Needle Aspiration Biopsy in Patients With Laryngeal Squamous Cell Carcinoma, Probable Failed Radiation Therapy, and Negative Transmucosal Biopsies—Citardi, MJ, Abrahams, JJ, et al. ..... 1244
Eicher, SA, Lotan, R: Differential Effects of Retinoic Acid and N-(4-hydroxyphenyl)retinamide on Head and Neck Squamous Cell Carcinoma Cells ..... 1471
Eisele, DW: Intraoperative Electrophysiologic Monitoring of the Recurrent Laryngeal Nerve ..... 443
Elevated Arginine Vasopressin Levels in Squamous Cell Cancer of the Head and Neck—Talmi, YP, Wolf, GT, et al. ..... 317
Endonasal Endoscopic Surgery for Rhinogen Intraorbital Abscess: A Report of Six Cases—Wolf, SR, Göde, U, et al. ..... 105
Endoscopic Dacryocystorhinostomy: Surgical Technique and Results—Sprekelsen, MB, Barberán, MT ..... 187
Endoscopic Repair of Cerebrospinal Fluid Fistulae and Encephaloceles—Lanza, DC, O'Brien, DA, et al. ..... 1119
Endoscopic Sinus Surgery in the Developmentally Delayed Child—Ramadan, HH, Rosen, D ..... 121
Endoscopic Sinus Surgery in the Treatment of Cystic Fibrosis With Nasal Polyposis—Rowe-Jones, JM, Mackay, IS ..... 1540
Endoscopic Sinus Surgery With Partial Middle Turbinate Resection: Effects on Olfaction—Friedman, M, Caldarelli, DD, et al. . 977
Endoscopic Staple-Assisted Esophagodiverticulostomy for Zenker's Diverticulum—Scher, RL, Richtsmeier, WJ ..... 951
Endoscopic Treatment of Tracheal Stenosis Using the Carbon Dioxide Laser and the Gianturco Stent: Indications and Results—Remacle, M, Lawson, G, et al. ..... 306
Enhanced Magnetic Resonance Imaging and Subtraction Techniques in the Postoperative Evaluation of Craniofacial Resection for Sinonasal Malignancy—Lund, VJ, Lloyd, GAS, et al. ..... 552
Enhanced Reliability and Renewed Applications of the Deltopectoral Flap in Head and Neck Reconstruction—Kingdom, TT, Singer, MI ..... 1230
Epidermal Differentiation in the Human External Auditory Meatus—Vennix, PPCA, Kuijpers, W, et al. ..... 470
Epidermal Growth Factor Receptor Expression by Acoustic Neuromas—Sturgis, EM, Woll, SS, et al. ..... 457
Epithelial Cell Proliferation in Nasal Polyps Regulated By Platelet-Derived Growth Factor—Coste, A, Wang, Q-P, et al. .. 578
Epp, RA, Justice, WM, Garcia, FU, McGregor, DH, Giri, SPG, Kimler, BF: Retrospective DNA Ploidy Analysis by Image and Flow Cytometry in Head and Neck Cancer ..... 1306
Erbium Laser in Middle Ear Surgery: In Vitro and In Vivo Animal Study—Shah, UK, Poe, DS, et al. ..... 418
Evaluation of a New Laser-Resistant Fabric and Copper Foil–Wrapped Endotracheal Tube—Sosis, MB, Braverman, B, et al. 842
Evaluation of Random Skin Flap Survival in a Porcine Model—Pratt, MF ..... 700
Evaluation of the Vestibular System by Magnetic Resonance Angiography—Welsh, LW, Welsh, JJ, et al. ..... 1138
Evolution of Head and Neck Surgery—Myers, EN ..... 929
Evolution of Research in Otolaryngology—Head and Neck Surgery Over the Past Century—Snow, JB Jr ..... 529
Evolution of the Management of Hydrocephalus Associated With Acoustic Neuroma—Atlas, MD, Perez de Tagle, JRV, et al. ..... 204
Examination Room Design for the Pediatric Otolaryngology Practice—Cook, SP ..... 1049
Expanded Polytetrafluoroethylene Augmentation of the Lower Face—Sherris, DA, Larrabee, WF Jr ..... 658
Experimental Study on Reinnervation of Vocal Cord Adductors With the Ansa Cervicalis—Zheng, H, Li, Z, et al. ..... 1516
Experimentally Induced Polyps in the Sinus Mucosa: A Structural Analysis of the Initial Stages—Norlander, T, Westrin, KM, et al. 196
Expression of Growth Factors, Proto-oncogenes, and p53 in Nasopharyngeal Angiofibromas—Nagai, MA, Butugan, O, et al. .... 190
Extended Lateral Arm Free Flap for Head and Neck Reconstruction: The Yale Experience—Ross, DA, Thomson, JG, et al. ..... 14
Extended Middle Meatal Antrostomy: The Prevention of Circular Flow—Coleman, JR Jr, Duncavage, JA ..... 1214
Extracorporeal Electromagnetic Shock-Wave Lithotripsy for Salivary Gland Stones—Ottaviani, F, Capaccio, P, et al. ..... 761

Extranodal Rosai-Dorfman Disease of the Head and Neck—Goodnight, JW, Wang, MB, et al. ..... 253

F

Factors Related to Quality of Life and Functional Status in 50 Patients With Head and Neck Cancer—Long, SA, D'Antonio, LL, et al. ..... 1084
False-Negative Magnetic Resonance Imaging in the Evaluation of Facial Nerve Paralysis—Freije, JE, Harvey, SA, et al. ..... 239
Familial Large Vestibular Aqueduct Syndrome—Griffith, AJ, Arts, HA, et al. ..... 960
Fenton, JE, Turner, J, Fagan, PA: Histopathologic Review of Temporal Bone Exostoses and Osteomata ..... 624
Fetterman, BL, Luxford, WM: Sudden Bilateral Sensorineural Hearing Loss ..... 1347
Fishman, AJ, Hoffman, RA, Roland, JT Jr., Lebowitz, RA, Cohen, NL: Cerebrospinal Fluid Drainage in the Management of CSF Leak Following Acoustic Neuroma Surgery ..... 1002
Foot and Ear Disease—The Dermatophytid Reaction in Otology—Derebery, MJ, Berliner, KI ..... 181
Freije, JE, Harvey, SA, Haberkamp, TJ: False-Negative Magnetic Resonance Imaging in the Evaluation of Facial Nerve Paralysis ..... 239
Fried, MP, Hsu, L, Toupulos, GP, Jolesz, FA: Image-Guided Surgery in a New Magnetic Resonance Suite: Preclinical Considerations ..... 411
Friedman, M, Caldarelli, DD, Venkatesan, TK, Pandit, R, Lee, Y: Endoscopic Sinus Surgery With Partial Middle Turbinate Resection: Effects on Olfaction ..... 977
Friedman, M, Venkatesan, TK, Lang, D, Caldarelli, DD: Bupivacaine for Postoperative Analgesia Following Endoscopic Sinus Surgery ..... 1382
Furukawa, M, Furukawa, MK, Katoh, K, Tsukuda, M: Differentiation Between Schwannoma of the Vagus Nerve and Schwannoma of the Cervical Sympathetic Chain by Imaging Diagnosis ..... 1548
Futran, ND: Closure of the Fibula Free Flap Donor Site With the Sure-Closure™ Skin-Stretching Device ..... 1487

G

Gabalski, EC, Mattucci, KF, Setzen, M, Moleski, P: Ambulatory Tonsillectomy and Adenoidectomy ..... 77
Gacek, M, Gacek, RR: Cricoarytenoid Joint Mobility After Chronic Vocal Cord Paralysis ..... 1528
Gacek, RR, Gacek, MR: Comparison of Labyrinthectomy and Vestibular Neurectomy in the Control of Vertigo ..... 225
Gacek, RR: Hilger: "The Nature of Bell's Palsy" (LARYNGOSCOPE 1949;59:228-235) ..... 1465
Galati, LT, Baredes, S, Mauriello, J, Frohman, L: Visual Loss Reversed After Treatment of Acute Bacterial Sinusitis ..... 148
Galvanic-Induced Postural Movements As a Test of Vestibular Function in Humans—Cass, SP, Redfern, MS, et al. ..... 423
Gaseous Dynamics of the Rabbit Maxillary Sinus—Mikula, SK, Gannon, PJ, et al. ..... 152
General Anesthesia With and Without Nitrous Oxide and the Weight of Middle Ear Effusion in Children Undergoing Adenoidectomy and Tympanostomy—Koivunen, P, Alho, O-P, et al. ..... 724
Genotype-Phenotype Correlations in Type 1 Waardenburg Syndrome—Lalwani, AK, Mhatre, AN, et al. ..... 895
Gentile, VG, Isaacson, G: Patterns of Sinusitis in Cystic Fibrosis ..... 1005
Gilbert, RJ, Daftary, S, Woo, P, Seltzer, S, Shapshay, SM, Weiskoff, RM: Echo-Planar Magnetic Resonance Imaging of Deglutitive Vocal Fold Closure: Normal and Pathologic Patterns of Displacement ..... 568
Glasscock, ME III, Storper, IS, Haynes, DS, Bohrer, PS: Stapedectomy in Profound Cochlear Loss ..... 831
Gleich, LL, Lin, Y-Q, Biddinger, PW, Gartside, PS, Stambrook, PJ, Pavelic, ZP, et al.: Loss of Heterozygosity in Retinoblastoma and p53 Suppressor Genes as a Prognostic Indicator for Head and Neck Cancer ..... 1378
Goodman, RS: Surgicel in the Control of Post-Tonsillectomy Bleeding ..... 1044
Goodnight, JW, Wang, MB, Sercarz, JA, Fu, YS: Extranodal Rosai-Dorfman Disease of the Head and Neck ..... 253
Graf, P, Hallén, H: Effect on the Nasal Mucosa of Long-Term Treatment with Oxymetazoline, Benzalkonium Chloride and Placebo Nasal Sprays ..... 605
Greinwald, CDR(sel) JH Jr, Holtel, MR: Absorption of Topical Cocaine in Rhinologic Procedures ..... 1223
Griffith, AJ, Arts, HA, Downs, C, Innis, JW, Shepard, NT, Sheldon, S, Gebarski, SS: Familial Large Vestibular Aqueduct Syndrome ..... 960
Growth Rate Characteristics of Acoustic Neuromas Associated With Neurofibromatosis Type 2—Abaza, MM, Makariou, E, et al. ..... 694
Guinea Pig Inner Ear Antigens: Extraction and Application to the Study of Human Autoimmune Inner Ear Disease—Cao, MY, Deggouj, N, et al. ..... 207
Gyo, K, Sato, H, Yanagihara, N: Simple Procedure to Prevent Protrusion of the Internal Receiver of a Cochlear Implant ..... 1566

H

Hamlar, DD, Schuller, DE, Gahbauer, RA, Buerki, RA, Staubus, AE, Hall, J, Altman, JS, et al.: Determination of the Efficacy of Topical Oral Pilocarpine for Postirradiation Xerostomia in Patients With Head and Neck Carcinoma ..... 972
Hanada, T, Furuta, S, Tateyama, T, Uchizono, A, Seki, D, Ohyama, M: Laser-Assisted Uvulopalatoplasty With Nd:YAG Laser for Sleep Disorders ..... 1531
Hao, SP: Transnasal Endoscopic Repair of Cerebrospinal Fluid Rhinorrhea: An Interposition Technique ..... 501
Harrill, WC, Stewart, MG, Lee, AG, Cernoch, P: Chronic Rhinocerebral Mucormycosis ..... 1292
Harris P. Mosher Award: A Legacy of Excellence—Bailey, BJ .... 1317
Harris Peyton Mosher: The Man Behind the Award—Jahrsdoerfer, RA ..... 1323
Harvey, SA, Wood, DJ: Oculocephalic Response in the Evaluation of the Dizzy Patient ..... 6
Hayakawa, K, Mitsuhashi, N, Akimoto, T, Maebayashi, K, Ishikawa, H, Hayakawa, K, et al.: Effect of Overall Treatment Time of Radiation Therapy on Local Control of T1-Stage Squamous Cell Carcinoma of the Glottis ..... 1545
Hearing Loss in Turner Syndrome—Sculerati, N, Oddoux, C, et al. ..... 992
Heterogeneity of Squamous Cell Carcinomas of the Head and Neck—Analysis of Tumor Biologic Factors and Proliferation Rates—Jacob, R, Welkoborsky, HJ, et al. ..... 1170
Hilger: "The Nature of Bell's Palsy" (LARYNGOSCOPE 1949;59:228-235)—Gacek, RR ..... 1465
Histopathologic Review of Temporal Bone Exostoses and Osteomata—Fenton, JE, Turner, J, et al. ..... 624
Histopathology and CT Analysis of Partially Resected Middle Turbinates—Biedlingmaier, JF, Whelan, P, et al. ..... 102
Histopathology of Idiopathic Chronic Recurrent Vertigo—Ishiyama, A, Ishiyama, GP, et al. ..... 1340
History of Laryngology in the United States—Woodson, GE ..... 677
Holman, ML, Neely, JG, Joaquin, AH: Computer-Assisted Clinimetric Tool for the Study of Facial Expression: A Pilot Validity Study ..... 135
Holmium:YAG Laser Endoscopic Sinus Surgery—A Randomized, Controlled Study—Metson, R ..... Suppl 77
Holt, JJ: Stylomastoid Area: Anatomic-Histologic Study and Surgical Approach ..... 396
Holzer, SES, Ludlow, CL: Swallowing Side Effects of Botulinum Toxin Type A Injection in Spasmodic Dysphonia ..... 86
House: "Surgical Exposure of the Internal Auditory Canal and Its Contents Through the Middle Cranial Fossa" (LARYNGOSCOPE 1961:71:1363-1385)—Lambert, PR ..... 1195
Hui, Y, Wei, WI, Yuen, PW, Lam, LK, Ho, WK: Primary Closure of Pharyngeal Remnant After Total Laryngectomy and Partial Pharyngectomy: How Much Residual Mucosa Is Sufficient? ... 490
Human Nasal Epithelium Adsorbs Complement C3-Related Fragments and Expresses Cell-Membrane Complement Regulatory Proteins—Varsano, S, Frolkis, I, et al. ..... 599
Hurst, DS: Association of Otitis Media With Effusion and Allergy as Demonstrated by Intradermal Skin Testing and Eosinophil Cationic Protein Levels in Both Middle Ear Effusions and Mucosal Biopsies ..... 1128
Hwang, PH, Jackler, RK: Lipoid Meningitis Due to Aseptic Necrosis of a Free Fat Graft Placed During Neurotologic Surgery ..... 1482
Hypericin: A New Laser Phototargeting Agent for Human Cancer Cells—VanderWerf, QM, Saxton, RE, et al. ..... 479

## I

Identifying Obstructive Sleep Apnea in Patients Presenting for Laser-Assisted Uvulopalatoplasty—Vaidya, AM, Petruzzelli, GJ, et al. ..... 431
Image-Guided Surgery in a New Magnetic Resonance Suite: Preclinical Considerations—Fried, MP, Hsu, L, et al. ..... 411
Immunobiological Peculiarities of Cholesteatoma in Children: Quantification of Epithelial Proliferation by MIB-1—Bujía, J, Holly, A, et al. ..... 865
Immunohistochemical Localization of Nitric Oxide Synthase Activity in Upper Respiratory Epithelium—Rosbe, KW, Minns, JW, et al. ..... 1075
Impaired Ranvier Node Sodium-Potassium Adenosine Triphosphatase May Induce Facial Palsy—Kanoh, N, Sakagami, M ... 1180
Importance of Mandibular Position in Microvascular Mandibular Reconstruction—Li, KK, Cheney, ML, et al. ..... 903
*In Vitro* and *In Vivo* Determination of the Thermal Effect of Middle Ear Endoscopy—Bottrill, I, Perrault, EF Jr, et al. ..... 213
Incidence of Micrometastases in Neck Dissection Specimens Obtained from Elective Neck Dissections—van den Brekel, MWM, van der Waal, I, et al. ..... 987
Indications and Variations of Transcochlear Exposure of the Ventral Brainstem—Arriaga, LTC MA, Gorum, MAJ M ..... 639
Indirect Larynx and Pharynx Surgery: A Replacement for Direct Laryngoscopy—Bastian, RW, Delsupehe, KG ..... 1280
Inflammation in the Uvula Mucosa of Patients with Obstructive Sleep Apnea—Sekosan, M, Zakkar, M, et al. ..... 1018
Influence of Chemical Allograft Preservation Procedures on the Human Immunodeficiency Virus—Bujía, J, Wilmes, E, et al. .. 645
Inhibition of Head and Neck Tumor Cell Growth With Arachidonic Acid Metabolism Inhibition—Ondrey, FG, Juhn, SK, et al. .. 129
Intraoperative Electrophysiologic Monitoring of the Recurrent Laryngeal Nerve—Eisele, DW ..... 443
Intraoperative Identification of the Laryngeal Nerves Using Laryngeal Electromyography—Mermelstein, M, Nonweiler, R, et al. ..... 752
Intratemporal Facial Nerve Perineurioma—Li, D, Schauble, B, et al. ..... 328
Ishiyama, A, Ishiyama, GP, Lopez, I, Eversole, LR, Honrubia, V, Baloh, RW: Histopathology of Idiopathic Chronic Recurrent Vertigo ..... 1340

## J

J-Shaped, Conchal Excision With Rotation Advancement for Closure of Large, Auricular Wedge Defects—Chiu, LD, Barber, W, et al. ..... 116
Jackson, CG, Pappas, DG Jr, Manolidis, S, Glasscock, ME III, et al.: Pediatric Neurotologic Skull Base Surgery ..... 1205
Jacob, R, Welkoborsky, HJ, Mann, WJ, Höfken, F, Dienes, H-J, Freije, JE: Heterogeneity of Squamous Cell Carcinomas of the Head and Neck—Analysis of Tumor Biologic Factors and Proliferation Rates ..... 1170
Jahrsdoerfer, RA: Harris Peyton Mosher: The Man Behind the Award ..... 1323
Jako: "Laser Surgery of the Vocal Cords; An Experimental Study With Carbon Dioxide Lasers on Dogs." (LARYNGOSCOPE. 1972;82:2204-2216)—Shapshay, SM ..... 935
James R Chandler: "Malignant External Otitis" (LARYNGOSCOPE 1968;78:1257-1294)—Lucente, FE, Parisier, SC ..... 805
Jecker, P, Ptok, M, Pabst, R, Westermann, J: Age Dependency of the Composition of Immunocompetent Cells and the Expression of Adhesion Molecules in Rat Laryngeal Mucosa ..... 733
Jeon, S, Kim, C, Ma, Y, Hwang, E: Microsurgical Intranasal Reconstruction of Isolated Blowout Fractures of the Medial Orbital Wall ..... 910
John Conley, MD: An Issue of Special Recognition—Bailey, BJ, et al. ..... 385
Johns, ME: Perspective on the History of the Academic Health Center ..... 1059

## K

Kanoh, N, Sakagami, M: Impaired Ranvier Node Sodium-Potassium Adenosine Triphosphatase May Induce Facial Palsy ..... 1180
Kantu, S, Lee, D, Nash, M, Lucente, FE: Safety Awareness for the Otolaryngologist Caring for the HIV-Positive Patient ..... 982
Karamitsos, DG, Kounis, NG, Zayras, GM, Kitrou, MP, Goudevenos, JA, Papadaki, PJ, et al.: Brainstem Auditory Evoked Potentials in Patients With Ischemic Heart Disease ..... 54
Kasemsuwan, L, Schachern, P, Paparella, MM: Residual Mesenchyme in Temporal Bones of Children ..... 1040
Kass, ES, Salman, S, Montgomery, WW: Manometric Study of Complete Ostial Occlusion in Chronic Maxillary Atelectasis ... 1255
Keithley, EM, Harris, JP: Late Sequelae of Cochlear Infection ... 341
Kelly, JH, Kuncl, RW: Myology of the Pharyngoesophageal Segment: Gross Anatomic and Histologic Characteristics ..... 713
Keloid Excision and Recurrence Prophylaxis Via Intradermal Interferon-Gamma Injections: A Pilot Study—Broker, BJ, Rosen, D, et al. ..... 1497
Kershner, JE, Futran, ND: Effect of Topical Vasodilating Agents on Microvascular Vessel Diameter in the Rat Model ..... 1429
King, RC, Mills, SL, Medina, JE: Parathyroid Visualization with Cibacron Blue/BB5-G1 ..... 1365
Kingdom, TT, Singer, MI: Enhanced Reliability and Renewed Applications of the Deltopectoral Flap in Head and Neck Reconstruction ..... 1230
Koivunen, P, Alho, O-P, Uhari, M, Partanen, A, Luotonen, J: General Anesthesia With an I Without Nitrous Oxide and the Weight of Middle Ear Effusion in Children Undergoing Adenoidectomy and Tympanostomy ..... 724
Komatusuzaki, A, Yamada, M, Terasaki, O: Three-Dimensional Computed Imaging Using a Personal Computer for Nasal Surgery ..... 584
Koriwchak, MJ, Netterville, JL, Snowden, T, Courey, M, Ossoff, RH: Alternating Unilateral Botulinum Toxin Type A (BOTOX®) Injections for Spasmodic Dysphonia ..... 1476
Kosko, JR, Hall, BE, Tunkel, DE: Acquired Maxillary Sinus Hypoplasia: A Consequence of Endoscopic Sinus Surgery? ..... 1210
Koukourakis, MI, Whitehouse, RM, Giatromanolaki, A, Saunders, M, Kaklamanis, L: Predicting Distant Failure in Nasopharyngeal Cancer ..... 765
Kurono, Y, Shigemi, H, Kodama, S, Mogi, G: Effects of Oral and Systemic Immunization on Nasopharyngeal Clearance of Nontypeable *Haemophilus influenzae* in BALB/c Mice ..... 614
Kveton, JF: Obliteration of the Eustachian Tube Using Hydroxyapatite Cement: A Permanent Technique ..... 1241

## L

Laccourreye, O, Weinstein, G, Naudo, P, Cauchois, R, Laccourreye, H, Brasnu, D: Supracricoid Partial Laryngectomy After Failed Laryngeal Radiation Therapy ..... 495
Lalwani, AK, Mhatre, AN, San Augustin, TB, Wilcox, ER: Genotype-Phenotype Correlations in Type 1 Waardenburg Syndrome ..... 895
Lambert, PR: House: "Surgical Exposure of the Internal Auditory Canal and Its Contents Through the Middle Cranial Fossa" (LARYNGOSCOPE 1961:71:1363-1385) ..... 1195
Lanza, DC, O'Brien, DA, Kennedy, DW: Endoscopic Repair of Cerebrospinal Fluid Fistulae and Encephaloceles ..... 1119
Laparoscopic Gastrostomy Versus Open Gastrostomy in Head and Neck Cancer Patients—Lydiatt, DD, Murayama, KM, et al. ..... 407
Laryngeal Activity During Swallow, Phonation and the Valsalva Maneuver: An Electromyographic Analysis—McColloch, TM, Perlman, AL, et al. ..... 1351
Laryngeal Muscle Activity During Speech Breaks in Adductor Spasmodic Dysphonia—Nash, EN, Ludlow, CL ..... 484
Laryngeal Tuberculosis in HIV-Infected Patients: A difficult Diagnosis—Singh, B, Balwally, AN, et al. ..... 1238
Laryngology Education at the Turn of the Century—Bailey, BJ .. 797
LARYNGOSCOPE—The First 100 Years—Bailey, BJ ..... 527
Laryngoscopic Placement of Laryngeal Keels With Percutaneous Fixation—Chiu, LD, Rasgon, BM, et al. ..... 788
Laryngoscopy and Laryngoscopes—Who's First?: The Forefathers/Four Fathers of Laryngology—Bailey, BJ ..... 939
Laryngotracheal Reconstruction Using Microplates in a Porcine Model With Subglottic Stenosis—Mitskavich, MT, Rimell, FL, et al. ..... 301
Laser Photochemotherapy With Anthracytes on Cultured Human Squamous Cell Carcinoma Cells—Paiva, MB, Saxton, RE, et al. ..... 257
Laser Versus Cold Instruments for Microlaryngoscopic Surgery—Zeitels, SM ..... 545
Laser-Assisted Tympanostomy—Silverstein, H, Kuhn, J, et al. .. 1067

Laser-Assisted Uvulopalatoplasty for Obstructive Sleep Apnea—Mickelson, SA ..... 10
Laser-Assisted Uvulopalatoplasty With Nd:YAG Laser for Sleep Disorders—Hanada, T, Furuta, S, et al. ..... 1531
Laser-Assisted Uvulopalatoplasty: Postoperative Complications—Walker, RP, Gopalsami, C ..... 834
Late Sequelae of Cochlear Infection—Keithley, EM, Harris, JP ..... 341
Lawson, W, Reino, AJ: Management of Embossment Following the Frontal Osteoplastic Operation ..... 1259
Lazarus, CL, Logemann, JA, Pauloski, BR, Colangelo, LA, Kahrilas, PJ, Mittal, B, Pierce, M: Swallowing Disorders in Head and Neck Cancer Patients Treated With Radiotherapy and Adjuvant Chemotherapy ..... 1157
Lazor, JB, Varvares, MA, Montgomery, WW, Goodman, ML, Mackool, BT: Management of Airway Obstruction in Cicatricial Pemphigoid ..... 1014
Learning Curve for Acoustic Tumor Surgery—Buchman, CA, Chen, DA, et al. ..... 1406
Lee, D, Nash, M, Har-El, G: Regional Spread of Auricular and Periauricular Cutaneous Malignancies ..... 998
Lee, S, Eisele, DW, Schwartz, AR, Ryugo, DK: Peripheral Course of Genioglossal Motor Axons Within the Hypoglossal Nerve of the Rat ..... 1274
Lempert, T, Tiel-Wilck, K: Positional Maneuver for Treatment of Horizontal-Canal Benign Positional Vertigo ..... 476
Levenson, MJ, Desloge, RB, Parisier, SC: Beta-2 Transferrin: Limitations of Use As a Clinical Marker for Perilymph ..... 159
Levin, RL, Feghali, JG, Morganstern, N, Llena, J, Bradley, MK: Aggressive Papillary Tumors of the Temporal Bone: An Immunohistochemical Analysis in Tissue Culture ..... 144
Li, D, Schauble, B, Moll, C, Fisch, U: Intratemporal Facial Nerve Perineurioma ..... 328
Li, KK, Cheney, ML, Teknos, TN: Importance of Mandibular Position in Microvascular Mandibular Reconstruction ..... 903
Li, KK, Cheney, ML: Use of Sliding Genioplasty for Treatment of Failed Chin Implants ..... 363
Li, KK, Schwartz, HC: Mandibular Body Bone in Facial Plastic and Reconstructive Surgery ..... 504
Like a Hick'ry Cog ..... 1469
Linder, TE, Pike, VE, Linstrom, CJ: Early Eyelid Rehabilitation in Facial Nerve Paralysis ..... 1115
Lingual Tonsil Hypertrophy Producing Obstructive Sleep Apnea—Dündar, A, Özünlü, A, et al. ..... 1167
Lipoid Meningitis Due to Aseptic Necrosis of a Free Fat Graft Placed During Neurotologic Surgery—Hwang, PH, Jackler, RK ..... 1482
Long, SA, D'Antonio, LL, Robinson, EB, Zimmerman, G, Petti, G, Chonkich, G: Factors Related to Quality of Life and Functional Status in 50 Patients With Head and Neck Cancer ..... 1084
Longitudinal Evaluation of Vocal Function Following Thyroplasty Type I in the Treatment of Unilateral Vocal Paralysis—Lu, F-L, Casiano, RR, et al. ..... 573
Looking Back at a Century of Cocaine—Use and Abuse—Bailey, BJ ..... 681
Lorente de No's "Anatomy of the eighth nerve I The central projection of the nerve endings of the internal ear; III General plan of structure of the primary cochlear nuclei"—Pillsbury, HC III . 533
Loss of Heterozygosity in Retinoblastoma and p53 Suppressor Genes as a Prognostic Indicator for Head and Neck Cancer—Gleich, LL, Li, Y-Q, et al. ..... 1378
Loughlin, CJ, Koufman, JA: Paroxysmal Laryngospasm Secondary to Gastroesophageal Reflux ..... 1502
Loughlin, CJ, Koufman, JA, Averill, DB, Cummins, MM, Kim, Y-J, Little, JP, Miller, IJ Jr, Meredith, JW: Acid-Induced Laryngospasm in a Canine Model ..... 1506
Lu, F-L, Casiano, RR, Lundy, DS, Xue, J-W: Longitudinal Evaluation of Vocal Function Following Thyroplasty Type I in the Treatment of Unilateral Vocal Paralysis ..... 573
Lucente, FE, Parisier, SC: James R Chandler: "Malignant External Otitis" (LARYNGOSCOPE 1968;78:1257-1294) ..... 805
Lund, VJ, Lloyd, GAS, Howard, DJ, Cheesman, AD, Phelps, PD: Enhanced Magnetic Resonance Imaging and Subtraction Techniques in the Postoperative Evaluation of Craniofacial Resection for Sinonasal Malignancy ..... 552
Luntz, M, Hodges, AV, Balkany, T, Dolan-Ash, S, Schloffman, J: Otitis Media in Children With Cochlear Implants ..... 1403
Lydiatt, DD, Murayama, KM, Hollins, RR, Thompson, JS: Laparoscopic Gastrostomy Versus Open Gastrostomy in Head and Neck Cancer Patients ..... 407

## M

M-Meatoplasty of the External Auditory Canal—Mirck, PGB .... 367
Malignant Melanoma Metastatic to the Tonsil—Aydogan, LB, Myers, JN, et al. ..... 313
Malis, MAJ DJ, Burton, MAJ DM: Peripheral Nerve Monitoring in Children Undergoing Neuromuscular Blockade After Single-Stage Laryngotracheoplasty ..... 919
Management of Airway Obstruction in Cicatricial Pemphigoid—Lazor, JB, Varvares, MA, et al. ..... 1014
Management of Carcinoma of the Supraglottic Larynx: Evolution, Current Concepts, and Future Trends—Myers, EN, Alvi, A ..... 559
Management of Embossment Following the Frontal Osteoplastic Operation—Lawson, W, Reino, AJ ..... 1259
Mandibular Body Bone in Facial Plastic and Reconstructive Surgery—Li, KK, Schwartz, HC ..... 504
Manometric Study of Complete Ostial Occlusion in Chronic Maxillary Atelectasis—Kass, ES, Salman, S, et al. ..... 1255
Manrique, M, Cervera-Paz, FJ, Espinosa, JM, Perez, N, Garcia-Tapia, R: Cochlear Implantation in Radical Cavities of Mastoidectomy ..... 1562
Marks, SC, Lolachi, CM, Shamsa, F, Robinson, K, Aref, A, Jacobs, JR: Outcome of Pyriform Sinus Cancer: A Retrospective Institutional Review ..... 27
Mastoid Surgery in the Only Hearing Ear—Perez de Tagle, JRV, Fenton, JE, et al. ..... 67
Max, L, Steurs, W, de Bruyn, W: Vocal Capacities in Esophageal and Tracheoesophageal Speakers ..... 93
McColloch, TM, Perlman, AL, Palmer, PM, Van Daele, DJ: Laryngeal Activity During Swallow, Phonation and the Valsalva Maneuver: An Electromyographic Analysis ..... 1351
McDonald, KR, Bradfield, JJ, Kinsella, JK, Kumar, D, Mader, JA, Hokanson, JA, Calhoun, KH: Effect of Hyperbaric Oxygenation on Existing Oral Mucosal Carcinoma ..... 957
McFadden, EA, Woodson, BT, Massaro, BM, Toohill, RJ: Orbital Complications of Sinusitis in the Aspirin Triad Syndrome ..... 1103
Mermelstein, M, Nonweiler, R, Rubinstein, EH: Intraoperative Identification of the Laryngeal Nerves Using Laryngeal Electromyography ..... 752
Merne, MET, Syrjänen, SM: Detection of Epstein-Barr Virus in Salivary Gland Specimens from Sjögren's Syndrome Patients . 1534
Metastatic Cutaneous Squamous Cell Carcinoma of the Head and Neck Region—Tavin, E, Persky, M ..... 156
Metastatic Neoplasms to the Larynx: Report of Three Cases—Nicolai, P, Puxeddu, R, et al. ..... 851
Metson, R: Holmium:YAG Laser Endoscopic Sinus Surgery—A Randomized, Controlled Study .....Suppl 77
Meyerhoff, WL: Bluestone, et al.: "Audiometry and Tympanometry in Relation to Middle Ear Effusions in Children" (LARYNGOSCOPE 1973;83:594-604) ..... 684
Meyerson, LR, Monsell, EM, Rock, JP: Preventive Management of Cerebrospinal Fluid Leak in Translabyrinthine Surgery .... 610
Meylan, PRA, Duscher, A, Mudry, A, Monnier, P: Risk of Transmission of Human Immunodeficiency Virus Infection During Tympano-Ossicular Homograft: An Experimental Study ..... 334
Mickelson, SA: Laser-Assisted Uvulopalatoplasty for Obstructive Sleep Apnea ..... 10
Microbiology of Subperiosteal Orbital Abscess and Associated Maxillary Sinusitis—Brook, I, Frazier, EH ..... 1010
Microsporidian Sinusitis in Patients with the Acquired Immunodeficiency Syndrome—Rossi, RM, Wanke, C, et al. ..... 966
Microsurgical Intranasal Reconstruction of Isolated Blowout Fractures of the Medial Orbital Wall—Jeon, S, Kim, C, et al. .. 910
Microvascular Access in the Multiply Operated Neck: Thoracodorsal Transposition—Dolan, R, Gooey, J, et al. ..... 1436
Mikula, SK, Gannon, PJ, Shapiro, J, Lawson, W: Gaseous Dynamics of the Rabbit Maxillary Sinus ..... 152
Minimally Invasive Laser Surgery for the Treatment of Bilateral Vocal Cord Paralysis—Bigenzahn, W, Hoefler, H ..... 791
Mirck, PGB: M-Meatoplasty of the External Auditory Canal ..... 367
Mitskavich, MT, Rimell, FL, Shapiro, AM, Post, JC, Kapadia, SB: Laryngotracheal Reconstruction Using Microplates in a Porcine Model With Subglottic Stenosis ..... 301

Moñux, A, Rabanal, I, Cabra, J, García-Polo, J, Gavilán, J: Easier Technique for Near-Total Laryngectomy ..... 235
Moran, CJ, Neely, JG: Patterns of Facial Nerve Synkinesis ..... 1491
MRI Evaluation of Vocal Fold Paralysis Before and After Type I Thyroplasty—Bryant, NJ, Gracco, LC, et al. ..... 1386
Mucociliary Clearance Following Segmental Tracheal Reversal—Delaere, PR, Liu, Z, et al. ..... 450
Murphy, TP, Wallis, DL: Stapedectomy in the Pediatric Patient .. 1415
Myers, EN, Alvi, A: Management of Carcinoma of the Supraglottic Larynx: Evolution, Current Concepts, and Future Trends .. 559
Myers, EN: Evolution of Head and Neck Surgery ..... 929
Myers, JN, Myers, EN, Kirkwood, J: Malignant Melanoma Metastatic to the Tonsil ..... 313
Myology of the Pharyngoesophageal Segment: Gross Anatomic and Histologic Characteristics—Kelly, JH, Kuncl, RW ..... 713

## N

Nadol, JB Jr: Schuknecht: "Presbycusis" (LARYNGOSCOPE 1955; 65:402-419) ..... 1327
Nagai, MA, Butugan, O, Logullo, A, Brentani, MM: Expression of Growth Factors, Proto-oncogenes, and p53 in Nasopharyngeal Angiofibromas ..... 190
Nakayama, M, Riggs, LC, Matz, GJ: Quantitative Study of Vestibulotoxicity Induced by Gentamicin or Cisplatin in the Guinea Pig ..... 162
Nasal and Nasopharyngeal Angiocentric T-Cell Lymphomas—Davison, SP, Habermann, TM, et al. ..... 139
Nasal Septal Squamous Cell Carcinoma: A Chart Review and Meta-analysis—DiLeo, MD, Miller, RH, et al. ..... 1218
Nash, A, Ludlow, CL: Laryngeal Muscle Activity During Speech Breaks in Adductor Spasmodic Dysphonia ..... 484
Nasofrontal Duct Reconstruction With Silicone Rubber Sheeting for Inflammatory Frontal Sinus Disease: Analysis of 164 Cases—Amble, FR, Kern, EB, et al. ..... 809
Nasri, S, Namazie, A, Ye, M, Kreiman, J, Gerratt, BR, Berke, GS: Characteristics of an In Vivo Canine Model of Phonation With a Constant Air Pressure Source ..... 745
Nasri, S, Oh, Y, Calcaterra, TC: Transpharyngeal Approach to Base of Tongue Tumors: A Comparative Study ..... 945
Near-Total Laryngectomy May Be Successful Despite Postoperative Radiation Therapy—Terris, DJ, Fee, WE Jr, et al. ..... 1152
Necrosed Incus in Stapedectomy Revision—Seifi, AE ..... 511
Neely, JG, Joaquin, AH, Kohn, LA, Cheung, JY: Quantitative Assessment of the Variation Within Grades of Facial Paralysis ..... 438
Neonatal Mesenchyme Temporal Bone Study: Typical Receding Pattern Versus Increase in Potter's Sequence—Piza, JE, Northrop, CC, et al. ..... 856
New Method of Applying External Laryngeal Pressure During Microlaryngeal Surgery: The Laryngeal Strap—Corbridge, RJ, Harries, MLL ..... 499
Newman, JP, Clerk, AA, Moore, M, Utley, DS, Terris, DJ: Recognition and Surgical Management of the Upper Airway Resistance Syndrome ..... 1089
Nguyen, Q, deTar, M, Wells, W, Crockett, D: Cervical Thymic Cyst: Case Reports and Review of the Literature ..... 247
Nicolai, P, Puxeddu, R, Capiello, J, Peretti, G, Battocchio, S, Facchetti, F, Antonelli, AR: Metastatic Neoplasms to the Larynx: Report of Three Cases ..... 851
Nitric Oxide: A Mediator of Endotoxin-Induced Middle Ear Effusions—Ball, SS, Prazma, J, et al. ..... 1021
Nordin, S, Murphy, C, Davidson, TM, Quiñonez, C, Jalowayski, AA, Ellison, DW: Prevalence and Assessment of Qualitative Olfactory Dysfunction in Different Age Groups ..... 739
Norlander, T, Westrin, KM, Fukami, M, Stierna, P, Carlsöö, B: Experimentally Induced Polyps in the Sinus Mucosa: A Structural Analysis of the Initial Stages ..... 196
Nozawa, I, Imamura, S, Fujimori, I, Hashimoto, K, Shimomura, S, Hisamatsu, K, Murakami, Y: Age-Related Alterations in the Auditory Brainstem Responses and the Compound Action Potentials in Guinea Pigs ..... 1034
Nuutinen, J: Asymmetry in the Nasal Mucociliary Transport Rate ..... 1424

## O

Objective Assessment of Snoring Before and After Laser-Assisted Uvulopalatoplasty—Walker, RP, Gatti, WM, et al. ..... 1372
Obliteration of the Eustachian Tube Using Hydroxyapatite Cement: A Permanent Technique—Kveton, JF ..... 1241
Oculocephalic Response in the Evaluation of the Dizzy Patient—Harvey, SA, Wood, DJ ..... 6
Omori, K, Slavit, DH, Kacker, A, Blaugrund, SM: Quantitative Criteria for Predicting Thyroplasty Type I Outcome ..... 689
Ondrey, FG, Juhn, SK, Adams, GL: Inhibition of Head and Neck Tumor Cell Growth With Arachidonic Acid Metabolism Inhibition ..... 129
Optimal Concentration of Epinephrine for Vasoconstriction in Neck Surgery—Dunlevy, TM, O'Malley, TP, et al. ..... 1412
Oral Lichen Planus and Its Association With Squamous Cell Carcinoma: An Update on Pathogenesis and Treatment Implications—Duffey, DC, Eversole, LR, et al. ..... 357
Orbicularis Oris Muscle Injury in Brass Players—Papsin, BC, Maaske, LA, et al. ..... 757
Orbital Complications of Sinusitis in the Aspirin Triad Syndrome—McFadden, EA, Woodson, BT, et al. ..... 1103
Oshima, T, Ueda, N, Ikeda, K, Abe, K, Takasaka, T: Bilateral Sensorineural Hearing Loss Associated With the Point Mutation in Mitochondrial Genome ..... 43
Otitis Media in Children With Cochlear Implants—Luntz, M, Hodges, AV, et al. ..... 1403
Ototoxicity Resulting From Combined Administration of Cisplatin and Gentamicin—Riggs, LC, Brummett, RE, et al. ..... 401
Ottaviani, F, Capaccio, P, Campi, M, Ottaviani, A: Extracorporeal Electromagnetic Shock-Wave Lithotripsy for Salivary Gland Stones ..... 761
Outcome of Pyriform Sinus Cancer: A Retrospective Institutional Review—Marks, SC, Lolachi, CM, et al. ..... 27
Outcome of Vestibular Nerve Section for Intractable Vertigo: The Patient's Point of View—Reid, CB, Eisenberg, R, et al. ..... 1553
Overholt, SM, Eicher, SA, Wolf, P, Weber, RS: Prognostic Factors Affecting Outcome in Lower Gingival Carcinoma ..... 1335

## P

Paiva, MB, Saxton, RE, St Letts, G, Chung, PS, Soudant, J, Vanderwerf, Q, Castro, DJ: Laser Photochemotherapy With Anthracytes on Cultured Human Squamous Cell Carcinoma Cells ..... 257
Papsin, BC, Maaske, LA, McGrail, JS: Orbicularis Oris Muscle Injury in Brass Players ..... 757
Parathyroid Visualization with Cibacron Blue/BB5-G1—King, RC, Mills, SL, et al. ..... 1365
Parell, GJ, Becker, GD: Double V-Y Subcutaneous Island Flap ... 1434
Parnes, SM, Cacace, AT, Castracane, J, Conerty, M, Gardner, GM: Advances in the Development of the Interferometric Otoscope ..... 263
Paroxysmal Laryngospasm Secondary to Gastroesophageal Reflux—Loughlin, CJ, Koufman, JA ..... 1502
Parsons, DS, Smith, RB, Mair, MAJ EA, Dlabal, LJ: Unique Case Presentations of Acute Epiglottic Swelling and a Protocol for Acute Airway Compromise ..... 1287
Pathogenesis of Middle Ear Adhesions—Cayé-Thomasen, P, Hermansson, A, et al. ..... 463
Patterns of Facial Nerve Synkinesis—Moran, CJ, Neely, JG ..... 1491
Patterns of Sinusitis in Cystic Fibrosis—Gentile, VG, Isaacson, G ..... 1005
Paulino, AC, Marks, JE, Leonetti, JP: Postoperative Irradiation of Patients with Malignant Tumors of the Skull Base ..... 880
Pediatric Neurotologic Skull Base Surgery—Jackson, CG, Pappas, DG Jr, MD, et al. ..... 1205
Pensak, ML, Gleich, LL, Gluckman, JL, Shumrick, KA: Temporal Bone Carcinoma: Contemporary Perspectives in the Skull Base Surgical Era ..... 1234
Pensak, ML: Alford and Guilford: "A Comprehensive Study of Tumors of the Glomus Jugulare" (LARYNGOSCOPE 1962;72:765–787) ..... 1063
Perez de Tagle, JRV, Fenton, JE, Fagan, PA: Mastoid Surgery in the Only Hearing Ear ..... 67
Peripheral Course of Genioglossal Motor Axons Within the Hypoglossal Nerve of the Rat—Lee, S, Eisele, DW, et al. ..... 1274
Peripheral Nerve Monitoring in Children Undergoing Neuromuscular Blockade After Single-Stage Laryngotracheoplasty—Malis, MAJ DJ, Burton, MAJ DM ..... 919
Perry, BP, Smith, DW: Effect of Cortisporin Otic Suspension on Cochlear Function and Efferent Activity in the Guinea Pig .... 1557

Perspective on the History of the Academic Health Center—Johns, ME ..... 1059
Pillsbury, HC III: Lorente de No's "Anatomy of the eighth nerve I The central projection of the nerve endings of the internal ear; III General plan of structure of the primary cochlear nuclei" ... 533
Piza, JE, Northrup, CC, Eavey, RD: Neonatal Mesenchyme Temporal Bone Study: Typical Receding Pattern Versus Increase in Potter's Sequence ..... 856
Pneumatized Superior Turbinate as a Cause of Referred Migraine Headache—Clerico, DM ..... 874
Positional Maneuver for Treatment of Horizontal-Canal Benign Positional Vertigo—Lempert, T, Tiel-Wilck, K ..... 476
Postoperative Irradiation of Patients with Malignant Tumors of the Skull Base—Paulino, AC, Marks, JE, et al. ..... 880
Pradhan, PS, Gliklich, RE, Winkelman, J: Screening for Obstructive Sleep Apnea in Patients Presenting for Snoring Surgery .. 1393
Pratt, MF: Evaluation of Random Skin Flap Survival in a Porcine Model ..... 700
Prechallenge Antibodies: Moderators of Infection Rate, Signs, and Symptoms in Adults Experimentally Challenged With Rhinovirus Type 39—Alper, CM, Doyle, WJ, et al. ..... 1298
Predicting Distant Failure in Nasopharyngeal Cancer—Koukourakis, MI, Whitehouse, RM, et al. ..... 765
Prediction of the Clinical Outcome of Acute Frontal Sinusitis With Ventilation Measurement of the Nasofrontal Duct After Trephination: A Long-Term Follow-up Study—Sipilä, J, Suonpää, J, et al. ..... 292
Predictive Value of Facial Nerve Electrophysiologic Stimulation Thresholds in Cerebellopontine-Angle Surgery—Selesnick, SH, Carew, JF, et al. ..... 633
Preservation of the Spinal Accessory Nerve in Modified Neck Dissections—Deschler, DG, Singer, MI ..... 664
Prevalence and Assessment of Qualitative Olfactory Dysfunction in Different Age Groups—Nordin, S, Murphy, C, et al. ..... 739
Preventive Management of Cerebrospinal Fluid Leak in Translabyrinthine Surgery—Meyerson, LR, Monsell, EM, et al. ..... 610
Primary Closure of Pharyngeal Remnant After Total Laryngectomy and Partial Pharyngectomy: How Much Residual Mucosa Is Sufficient?—Hui, Y, Wei, WI, et al. ..... 490
Prognostic Factors Affecting Outcome in Lower Gingival Carcinoma—Overholt, SM, Eicher, SA, et al. ..... 1335
Prognostic Value of EGFR and TGF-α in Early Laryngeal Cancer Treated With Radiotherapy—Wen, Q-H, Miwa, T, et al. ..... 884
Projected Societal Needs in Pediatric Otolaryngology—Zalzal, GH ..... 1176
Pulmonary Atelectasis After Reconstruction With a Latissimus Dorsi Myocutaneous Flap—Wax, MK, Hurst, J ..... 268
Pursuit of Excellence—Is It Still Possible?—Alford, BR ..... 1266

## Q

Quantification of Videostrobolaryngoscopic Findings—Measurements of the Normal Glottal Cycle—Woo, P ..... Suppl 79
Quantitative Analysis of Interleukin-1-Alpha Gene Expression in Middle Ear Cholesteatoma—Bujía, J, Kim, C, et al. ..... 217
Quantitative Assessment of the Variation Within Grades of Facial Paralysis—Neely, JG, Joaquin, AH, et al. ..... 438
Quantitative Criteria for Predicting Thyroplasty Type I Outcome—Omori, K, Slavit, DH, et al. ..... 689
Quantitative Cytology of Nasal Secretions and Scrapings in Japanese Cedar Pollinosis Patients—Takeuchi, K, Ukai, K, et al. ..... 1419
Quantitative Study of Vestibulotoxicity Induced by Gentamicin or Cisplatin in the Guinea Pig—Nakayama, M, Riggs, LC, et al. ..... 162

## R

Ramadan, HH, Rosen, D: Endoscopic Sinus Surgery in the Developmentally Delayed Child ..... 121
Recognition and Surgical Management of the Upper Airway Resistance Syndrome—Newman, JP, Clerk, AA, et al. ..... 1089
Reduction of Endotoxin-Induced Inflammation of the Middle Ear by Polymyxin B—Darrow, DH, Keithley, EM ..... 1028
Regeneration of the Damaged Endolymphatic Sac Epithelium—Takahashi, M, Tomiyama, S ..... 619
Regional Spread of Auricular and Periauricular Cutaneous Malignancies—Lee, D, Nash, M, et al. ..... 998
Regulation of Transforming Growth Factor-β1–Mediated Apoptosis in Head and Neck Squamous Cell Carcinoma—Duffey, DC, Calcaterra, TC, et al. ..... 889
Reid, CB, Eisenberg, R, Halmagyi, GM, Fagan, PA: Outcome of Vestibular Nerve Section for Intractable Vertigo: The Patient's Point of View ..... 1553
Remacle, M, Lawson, G, Minet, M, Mayné, A, Watelet, JB, Jamart, J: Endoscopic Treatment of Tracheal Stenosis Using the Carbon Dioxide Laser and the Gianturco Stent: Indications and Results ..... 306
Requisites for Survival of Otolaryngology—Head and Neck Surgery—Cummings, CW ..... 1126
Residual Mesenchyme in Temporal Bones of Children—Kasemsuwan, K, Schachern, P, et al. ..... 1040
Retrospective DNA Ploidy Analysis by Image and Flow Cytometry in Head and Neck Cancer—Epp, RA, Justice, WM, et al. ... 1306
Riederer, A, Fischer, A, Knipping, S, Unger, J, Lange, W, Kastenbauer, E: Basic Innervation Pattern and Distribution of Classic Autonomic Neurotransmitters in Human Nasal Mucosal Vasculature ..... 286
Riggs, LC, Brummett, RE, Guitjens, SK, Matz, GJ: Ototoxicity Resulting From Combined Administration of Cisplatin and Gentamicin ..... 401
Risk of Transmission of Human Immunodeficiency Virus Infection During Tympano-Ossicular Homograft: An Experimental Study—Meylan, PRA, Duscher, A, et al. ..... 334
Robbins, KT, Hoffman, RM: "Decadose" Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract I Histoculture Experiments ..... 32
Robbins, KT, Storniolo, AM, Hryniuk, WM, Howell, SB: "Decadose" Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract II Clinical Studies ..... 37
Rosbe, KW, Minns, JW, Prazma, J, Petrusz, P, Rose, A, Drake, AF: Immunohistochemical Localization of Nitric Oxide Synthase Activity in Upper Respiratory Epithelium ..... 1075
Ross, DA, Thomson, JG, Restifo, R, Tarro, JM, Sasaki, CT: Extended Lateral Arm Free Flap for Head and Neck Reconstruction: The Yale Experience ..... 14
Rossi, RM, Wanke, C, Federman, M: Microsporidian Sinusitis in Patients with the Acquired Immunodeficiency Syndrome ..... 966
Rowe-Jones, JM, Mackay, IS: Endoscopic Sinus Surgery in the Treatment of Cystic Fibrosis With Nasal Polyposis ..... 1540

## S

Safety Awareness for the Otolaryngologist Caring for the HIV-Positive Patient—Kantu, S, Lee, D, et al. ..... 982
Sasaki, CT: Edmund Prince Fowler Award ..... 1463
Scher, RL, Richtsmeier, WJ: Endoscopic Staple-Assisted Esophagodiverticulostomy for Zenker's Diverticulum ..... 951
Schuknecht: "Presbycusis" (LARYNGOSCOPE 1955;65:402-419)—Nadol, JB Jr ..... 1327
Scintigraphic Quantification of Aspiration Reduction With the Passy-Muir Valve—Stachler, RJ, Hamlet, SL, et al. ..... 231
Sclafani, AP, Sclafani, SJA: Angiography and Transcatheter Arterial Embolization of Vascular Injuries of the Face and Neck .. 168
Screening for Obstructive Sleep Apnea in Patients Presenting for Snoring Surgery—Pradhan, PS, Gliklich, RE, et al. ..... 1393
Sculerati, N, Oddoux, C, Clayton, CM, Lim, JW, Oster, H: Hearing Loss in Turner Syndrome ..... 992
Seely, DR, Quigley, SM, Langman, AW: Ear Candles—Efficacy and Safety ..... 1226
Seidman, MD, Bai, U, Khan, MJ, Murphy, MP, Quirk, WS, Castora, FJ, Hinojosa, R: Association of Mitochondrial DNA Deletions and Cochlear Pathology: A Molecular Biologic Tool ..... 777
Seifi, AE: Necrosed Incus in Stapedectomy Revision ..... 511
Seikaly, H, Calhoun, KH, Rassekh, CH: Tissue Expander Insertion Through a Mini Incision ..... 908
Sekosan, M, Zakkar, M, Wenig, BL, Olopade, CO, Rubinstein, I: Inflammation in the Uvula Mucosa of Patients with Obstructive Sleep Apnea ..... 1018
Selesnick, SH, Carew, JF, Victor, JD, Heise, CW, Levine, J: Predictive Value of Facial Nerve Electrophysiologic Stimulation Thresholds in Cerebellopontine-Angle Surgery ..... 633
Shaari, CM, Biller, HF: Staged Repair of Cervical Tracheoesophageal Fistulae ..... 1398
Shah, UK, Poe, DS, Rebeiz, EE, Perrault, DF Jr, Pankratov, MM, Shapshay, SM: Erbium Laser in Middle Ear Surgery: In Vitro

and In Vivo Animal Study ..... 418
Shapshay, SM, Wang, Z, Rebeiz, EE: Combined Endoscopic $CO_2$ Laser and External Approach for Treatment of Glottic Cancer Involving the Anterior Commissure: An Animal Study ..... 273
Shapshay, SM: Jako: "Laser Surgery of the Vocal Cords; An Experimental Study With Carbon Dioxide Lasers on Dogs." (LARYNGOSCOPE. 1972;82:2204-2216) ..... 935
Sherris, DA, Larrabee, WF Jr: Expanded Polytetrafluoroethylene Augmentation of the Lower Face ..... 658
Shikowitz, MJ, Levy, J, Villano, D, Graver, LM, Pochaczevsky, R: Speech and Swallowing Rehabilitation Following Devastating Caustic Ingestion: Techniques and Indicators for Success ...Suppl 78
Shirley, DM, Williams, SA, Santos, PM: Brain-Derived Neurotrophic Factor and Peripheral Nerve Regeneration: A Functional Evaluation ..... 629
Shohet, JA, Courey, MS, Scott, MA, Ossoff, RH: Value of Videostroboscopic Parameters in Differentiating True Vocal Fold Cysts From Polyps ..... 19
Shupak, A, Tabari, R, Swarts, JD, Bluestone, CD, Doyle, WJ: Effects of Middle Ear Oxygen and Carbon Dioxide Tensions on Eustachian Tube Ventilatory Function ..... 221
Silverstein, H, Kuhn, J, Choo, D, Krespi, YP, Rosenberg, SI, Rowan, PT: Laser-Assisted Tympanostomy ..... 1067
Simple Procedure to Prevent Protrusion of the Internal Receiver of a Cochlear Implant—Gyo, K, Sato, H, et al. ..... 1566
Singh, B, Balwally, AN, Nash, M, Har-El, G, Lucente, FE: Laryngeal Tuberculosis in HIV-Infected Patients: A Difficult Diagnosis ..... 1238
Sinha, UK, Saadat, D, Linthicum, FH Jr, Hollen, KM, Miller, CA: Temporal Bone Findings in Alzheimer's Disease ..... 1
Sipilä, J, Suonpää, J, Wide, K, Silvoniemi, P: Prediction of the Clinical Outcome of Acute Frontal Sinusitis With Ventilation Measurement of the Nasofrontal Duct After Trephination: A Long-Term Follow-up Study ..... 292
Sling Stitch Endaural Meatoplasty—Tong, MCF, Liu, KC, et al. .. 1438
Snow, JB Jr: Evolution of Research in Otolaryngology—Head and Neck Surgery Over the Past Century ..... 529
Sosis, MB, Braverman, B, Caldarelli, DD: Evaluation of a New Laser-Resistant Fabric and Copper Foil–Wrapped Endotracheal Tube ..... 842
Sounds Familiar ..... 1326
Spandow, O, Hellström, S, Dahlström, M: Structural Characterization of Persistent Tympanic Membrane Perforations in Man ..... 346
Spanish Influenza—1918 ..... 1058
SPECT Gallium Scintigraphy in Malignant External Otitis: Initial Staging and Follow-up Case Reports—Stokkel, MPM, Boot, ICN, et al. ..... 338
Speech and Swallowing Rehabilitation Following Devastating Caustic Ingestion: Techniques and Indicators for Success—Shikowitz, MJ, Levy, J, et al. .....Suppl 78
Speyer, M, Joe, J, Davidson, JM, Ossoff, RH, Reinisch, L: Thermal Injury Patterns and Tensile Strength of Canine Oral Mucosa after Carbon Dioxide Laser Incisions ..... 845
Sphenopalatine Artery Ligation: An Alternative to Internal Maxillary Artery Ligation for Intractable Posterior Epistaxis—Winstead, W ..... 667
Sprekelsen, MB, Barberán, MT: Endoscopic Dacryocystorhinostomy: Surgical Technique and Results ..... 187
Stachler, RJ, Hamlet, SL, Choi, J, Fleming, S: Scintigraphic Quantification of Aspiration Reduction With the Passy-Muir Valve ..... 231
Staged Repair of Cervical Tracheoesophageal Fistulae—Shaari, CM, Biller, HF ..... 1398
Stapedectomy in Profound Cochlear Loss—Glasscock, ME III, Storper, IS, et al. ..... 831
Stapedectomy in the Pediatric Patient—Murphy, TP, Wallis, DL ..... 1415
Status of Otolaryngology in the Post–World War II Era. Part 2—A Look to the Future—Bailey, BJ ..... 1191
Status of Otolaryngology in the Post–World War II Era. Part 1—Defining the Problem—Bailey, BJ ..... 1053
Stokkel, MPM, Boot, ICN, van Eck-Smit, BLF: SPECT Gallium Scintigraphy in Malignant External Otitis: Initial Staging and Follow-up ..... 338
Structural Characterization of Persistent Tympanic Membrane Perforations in Man—Spandow, O, Hellström, S, et al. ..... 346
Sturgis, EM, Woll, SS, Aydin, F, Marrogi, AJ, Amedee, RG: Epidermal Growth Factor Receptor Expression by Acoustic Neuromas ..... 457
Stylomastoid Area: Anatomic-Histologic Study and Surgical Approach— Holt, JJ ..... 396
Submillimeter Magnetic Resonance Imaging of the Temporal Bone in Meniere's Disease—Welling, DB, Clarkson, MW, et al. 1359
Sudden Bilateral Sensorineural Hearing Loss—Fetterman, BL, Luxford, WM, et al. ..... 1347
Supracricoid Laryngectomy With Cricohyoidopexy (CHP) in the Treatment of Laryngeal Cancer: A Functional and Oncologic Experience—de Vincentiis, M, Minni, A, et al. ..... 1108
Supracricoid Partial Laryngectomy After Failed Laryngeal Radiation Therapy—Laccourreye, O, Weinstein, G, et al. ..... 495
Surgical Treatment of Acoustic Neuroma (Vestibular Schwannoma) in the United States: Report from the Acoustic Neuroma Registry—Wiegand, DA, Ojemann, RG, et al. ..... 58
Surgicel in the Control of Post-Tonsillectomy Bleeding—Goodman, RS ..... 1044
Swallowing Disorders in Head and Neck Cancer Patients Treated With Radiotherapy and Adjuvant Chemotherapy—Lazarus, CL, Logemann, JA, et al. ..... 1157
Swallowing Side Effects of Botulinum Toxin Type A Injection in Spasmodic Dysphonia—Holzer, SES, Ludlow, CL ..... 86
Syndromal Vertigo Identified by Magnetic Resonance Imaging and Angiography—Welsh, LW, Welsh, JJ, et al. ..... 1144

## T

Takahashi, M, Tomiyama, S: Regeneration of the Damaged Endolymphatic Sac Epithelium ..... 619
Takeuchi, K, Ukai, K, Lee, HS, Majima, Y, Sakakura, Y: Quantitative Cytology of Nasal Secretions and Scrapings in Japanese Cedar Pollinosis Patients ..... 1419
Talmi, YP, Wolf, GT, Hoffman, HT, Krause, CJ: Elevated Arginine Vasopressin Levels in Squamous Cell Cancer of the Head and Neck ..... 317
Tavin, E, Persky, M: Metastatic Cutaneous Squamous Cell Carcinoma of the Head and Neck Region ..... 156
Temporal Bone Carcinoma: Contemporary Perspectives in the Skull Base Surgical Era—Pensak, ML, Gleich, LL, et al. ..... 1234
Temporal Bone Findings in Alzheimer's Disease—Sinha, UK, Saadat, D, et al. ..... 1
Terris, DJ, Fee, WE Jr, Goffinet, DR: Near-Total Laryngectomy May Be Successful Despite Postoperative Radiation Therapy ..... 1152
Terris, J, Clerk, AA, Norbash, AM, Troell, RJ: Characterization of Postoperative Edema Following Laser-Assisted Uvulopalatoplasty Using MRI and Polysomnography: Implications for the Outpatient Treatment of Obstructive Sleep Apnea Syndrome ..... 124
Thabet, HM, Sessions, DG, Gado, MH, Gnepp, DA, Harvey, JE, Talaat, M: Comparison of Clinical Evaluation and Computed Tomographic Diagnostic Accuracy for Tumors of the Larynx and Hypopharynx ..... 589
Thermal Injury Patterns and Tensile Strength of Canine Oral Mucosa after Carbon Dioxide Laser Incisions—Speyer, MI, Joe, J, et al. ..... 845
Three-Dimensional Computed Imaging Using a Personal Computer for Nasal Surgery—Tsunoda, A, Komatusuzaki, A, et al. 584
Tissue Expander Insertion Through a Mini Incision—Seikaly, H, Calhoun, KH, et al. ..... 908
Tong, MCF, Liu, KC, van Hasselt, CA: Sling Stitch Endaural Meatoplasty ..... 1438
Tracheal Neovascularization: A Method Involving Mobilization of a Complete Tracheal Neovascularized Segment Using a Sternohyoid Muscle Flap—de Mello-Filho, FV, Mamede, RCM, et al. ..... 81
Tracheobronchography in Children—Deutsch, ES, Smergel, E, et al. ..... 1248
Tracheostoma in Relation to Prosthetic Voice Rehabilitation—Verschuur, HP, Gregor, RT, et al. ..... 111
Transnasal Endoscopic Repair of Cerebrospinal Fluid Rhinorrhea: An Interposition Technique—Hao, SP ..... 501
Transnasal Endoscopic Repair of Cranionasal Fistulae: A Refined Technique With Long-term Follow-up—Burns, JA, Dodson, EE, et al. ..... 1080
Transnasal-Transsphenoidal Endoscopic Surgery of the Pituitary

Gland—Carrau, RL, Jho, H-D, et al. ..... 914
Transpharyngeal Approach to Base of Tongue Tumors: A Comparative Study—Nasri, S, Oh, Y, et al. ..... 945
Tribute to Max Goldstein, MD, Founder and Editor of The LARYNGOSCOPE—Bailey, BJ ..... 535
Triglia, J-M, Beliaeff, M, Faugere, G: Cochlear Implantation in a Pacemaker Patient ..... 1184
Triosite Implants and Fibrin Glue in the Treatment of Atrophic Rhinitis: Technique and Results—Bertrand, B, Doyen, A, et al. 652
Tubach, M, McGee, J, Walsh, EJ: Distortion Generated by the Ear: Its Emergence and Evolution During Development ..... 822
Turbinate Flap for Reconstruction of Nasal Septal Mucosal Defects—Berinstein, LCDR TH, Bernstein, P ..... 1047
Turn of the Century Facial Plastic Surgeons and The LARYNGOSCOPE—Crumley, R ..... 1199
Two-Hole Ossiculoplasty Technique—de Varebeke, SJ, Govaerts, PJ, et al. ..... 507
Tympanostomies With Tubes: The Parent Perspective—Urben, SL, Nichols, RD ..... 1269
Tzikas, MAJ TL, Burgess, LTC LPA, Pickett, MAJ BP, Brammer, RE, Vossoughi, J: Wound Healing: Effects of Closing Tension, Zyplast™, and Platelet-Derived Growth Factor ..... 322

## U

Unique Case Presentations of Acute Epiglottic Swelling and a Protocol for Acute Airway Compromise—Parsons, DS, Smith, RB, et al. ..... 1287
Up-to-Date Offices from throughout the Century ..... 808
Update: Laryngeal Reinnervation for Unilateral Vocal Cord Paralysis With the Ansa Cervicalis—Zheng, H, Li, Z, et al. ..... 1522
Urben, SL, Nichols, RD: Tympanostomies With Tubes: The Parent Perspective ..... 1269
Use of Fibrin Glue in Parotidectomy Closure—Depondt, J, Koka, VN, et al. ..... 784
Use of Sliding Genioplasty for Treatment of Failed Chin Implants—Li, KK, Cheney, ML ..... 363

## V

Vaidya, AM, Petruzzelli, GJ, Walker, RP, McGee, D, Gopalsami, C: Identifying Obstructive Sleep Apnea in Patients Presenting for Laser-Assisted Uvulopalatoplasty ..... 431
Valentino, J, Funk, GF, Hoffman, HT, McCollough, TJ: Communicating Vein and Its Use in the Radial Forearm Free Flap ..... 648
Value of Videostroboscopic Parameters in Differentiating True Vocal Fold Cysts From Polyps—Shohet, JA, Courey, MS, et al. . 19
van den Brekel, MWM, van der Waal, I, Meijer, CJLM, Freeman, JL, Castelijns, JA, Snow, GB: Incidence of Micrometastases in Neck Dissection Specimens Obtained from Elective Neck Dissections ..... 987
VanderWerf, QM, Saxton, RE, Chang, A, Horton, D, Paiva, MP, Anderson, J: Hypericin: A New Laser Phototargeting Agent for Human Cancer Cells ..... 479
Varsano, S, Frolkis, I, Shapiro, H, Ophir, D: Human Nasal Epithelium Adsorbs Complement C3-Related Fragments and Expresses Cell-Membrane Complement Regulatory Proteins .... 599
Vennix, PPCA, Kuijpers, W, Peters, TA, Tonnaer, ELGM, Ramaekers, FCS: Epidermal Differentiation in the Human External Auditory Meatus ..... 470
Verschuur, HP, Gregor, RT, Hilgers, FJM, Balm, AJM: Tracheostoma in Relation to Prosthetic Voice Rehabilitation ..... 111
Visual Loss Reversed After Treatment of Acute Bacterial Sinusitis—Galati, LT, Baredes, S, et al. ..... 148
Vocal Capacities in Esophageal and Tracheoesophageal Speakers—Max, L, Steurs, W, et al. ..... 93
Vocal Cord Injection With Autogenous Fat: A Long-term Magnetic Resonance Imaging Evaluation—Brandenburg, JH, Unger, JM, et al. ..... 174

## W

Walker, RP, Gatti, WM, Poirier, N, Davis, JS: Objective Assessment of Snoring Before and After Laser-Assisted Uvulopalatoplasty ..... 1372
Walker, RP, Gopalsami, C: Laser-Assisted Uvulopalatoplasty: Postoperative Complications ..... 834
Wax, MK, Hurst, J: Pulmonary Atelectasis After Reconstruction With a Latissimus Dorsi Myocutaneous Flap ..... 268
Weisberger, EC, Emhardt, JD: Apneic Anesthesia With Intermittent Ventilation for Microsurgery of the Upper Airway ..... 1099
Welling, DB, Clarkson, MW, Miles, BA, Schmalbrock, P, et al.: Submillimeter Magnetic Resonance Imaging of the Temporal Bone in Meniere's Disease ..... 1359
Welsh, LW, Welsh, JJ, Jaffe, SC, Healy, MP: Evaluation of the Vestibular System by Magnetic Resonance Angiography ..... 1138
Welsh, LW, Welsh, JJ, Jaffe, SC, Healy, MP: Syndromal Vertigo Identified by Magnetic Resonance Imaging and Angiography .. 1144
Wen, Q-H, Miwa, T, Yoshizaki, T, Nagayama, I, Furukawa, M, Nishiijima, H: Prognostic Value of EGFR and TGF-α in Early Laryngeal Cancer Treated With Radiotherapy ..... 884
What's All the Fuss About?: The LARYNGOSCOPE Pages Cause an International Incident—Bailey, BJ ..... 925
Wiegand, DA, Ojemann, RG, Fickel, V: Surgical Treatment of Acoustic Neuroma (Vestibular Schwannoma) in the United States: Report from the Acoustic Neuroma Registry ..... 58
Winstead, W: Sphenopalatine Artery Ligation: An Alternative to Internal Maxillary Artery Ligation for Intractable Posterior Epistaxis ..... 667
Wolf, SR, Göde, U, Hosemann, W: Endonasal Endoscopic Surgery for Rhinogen Intraorbital Abscess: A Report of Six Cases ..... 105
Woo, P: Quantification of Videostrobolaryngoscopic Findings—Measurements of the Normal Glottal Cycle .....Suppl 79
Woodson, GE: History of Laryngology in the United States ..... 677
Wound Healing: Effects of Closing Tension, Zyplast™, and Platelet-Derived Growth Factor—Tzikas, MAJ TL, Burgess, LTC LPA, et al. ..... 322
Wyatt, JR, Niparko, JK, Rothman, M, deLissovoy, G: Cost Utility of the Multichannel Cochlear Implant in 258 Profoundly Deaf Individuals ..... 816

## Y

Yamasoba, T, Oka, Y, Tsukuda, K, Nakamura, M, Kaga, K: Auditory Findings in Patients with Maternally Inherited Diabetes and Deafness Harboring a Point Mutation in the Mitochondrial Transfer RNA$^{Leu(UUR)}$ Gene ..... 49
Younis, RT, Lazar, RH: Criteria for Success in Pediatric Functional Endonasal Sinus Surgery ..... 869

## Z

Zalzal, GH: Projected Societal Needs in Pediatric Otolaryngology 1176
Zeitels, SM: Laser Versus Cold Instruments for Microlaryngoscopic Surgery ..... 545
Zheng, H, Li, Z, Zhou, S, Cuan, Y, Wen, W, Lan, J: Experimental Study on Reinnervation of Vocal Cord Adductors With the Ansa Cervicalis ..... 1516
Zheng, H, Li, Z, Zhou, S, Cuan, Y, Wen, W, Lan, J: Update: Laryngeal Reinnervation for Unilateral Vocal Cord Paralysis With the Ansa Cervicalis ..... 1522

# SUBJECT

## A


***Acid-Induced Laryngospasm***
Acid-Induced Laryngospasm in a Canine Model—Loughlin, CJ, Koufman, JA, et al. ..... 1506
***Acoustic Immittance***
Advances in the Development of the Interferometric Otoscope—Parnes, SM, Cacace, AT, et al. ..... 263
***Acoustic Neuromas***
Acoustic Reflexes, Auditory Brainstem Response, and MRI in the Evaluation of Acoustic Neuromas—Burkey, JM, Rizer, FM, et al. ..... 839
Cerebrospinal Fluid Drainage in the Management of CSF Leak Following Acoustic Neuroma Surgery—Fishman, AJ, Hoffman, RA, et al. ..... 1002
Epidermal Growth Factor Receptor Expression by Acoustic Neuromas—Sturgis, EM, Woll, SS, et al. ..... 457
Evolution of the Management of Hydrocephalus Associated With Acoustic Neuroma—Atlas, MD, Perez de Tagle, JRV, et al. ..... 204
Growth Rate Characteristics of Acoustic Neuromas Associated With Neurofibromatosis Type 2—Abaza, MM, Makariou, E, et al. ..... 694
Surgical Treatment of Acoustic Neuroma (Vestibular Schwannoma) in the United States: Report from the Acoustic Neuroma Registry—Wiegand, DA, Ojemann, RG, et al. ..... 58
***Acoustic Tumor Surgery***
Learning Curve for Acoustic Tumor Surgery—Buchman, CA, Chen, DA, et al. ..... 1406
Preventive Management of Cerebrospinal Fluid Leak in Translabyrinthine Surgery—Meyerson, LR, Monsell, EM, et al. ..... 610
***Acquired Cervical Fistulae***
Staged Repair of Cervical Tracheoesophageal Fistulae—Shaari, CM, Biller, HF ..... 1398
***Acute Airway Compromise***
Unique Case Presentations of Acute Epiglottic Swelling and a Protocol for Acute Airway Compromise—Parsons, DS, Smith, RB, et al. ..... 1287
***Acute Bacterial Sinusitis***
Visual Loss Reversed After Treatment of Acute Bacterial Sinusitis—Galati, LT, Baredes, S, et al. ..... 148
***Acute Frontal Sinusitis***
Prediction of the Clinical Outcome of Acute Frontal Sinusitis With Ventilation Measurement of the Nasofrontal Duct After Trephination: A Long-Term Follow-up Study—Sipilä, J, Suonpää, J, et al. ..... 292
***Acute Otitis Media***
Early Otitis Media and Phonological Development at Age 2 Years—Abraham, SS, Wallace, IF ..... 727
***Adductor Spasmodic Dysphonia***
Laryngeal Muscle Activity During Speech Breaks in Adductor Spasmodic Dysphonia—Nash, EN, Ludlow, CL ..... 484
***Adenocarcinoma***
Aggressive Papillary Tumors of the Temporal Bone: An Immunohistochemical Analysis in Tissue Culture—Levin, RL, Feghali, JG, et al. ..... 144
***Adenoidectomy***
Ambulatory Tonsillectomy and Adenoidectomy—Gabalski, EC, Mattucci, KF, et al. ..... 77
General Anesthesia With and Without Nitrous Oxide and the Weight of Middle Ear Effusion in Children Undergoing Adenoidectomy and Tympanostomy—Koivunen, P, Alho, O-P, et al. 724
***Advertisements in The Laryngoscope***
Arsenauro, 1901–1904 ..... 928
Contraptions ..... 1204
Improved Hearing Aid—1932 ..... 532
Like a Hick'ry Cog ..... 1469
Merits of Our Cocaine—1896 ..... 680
Sounds Familiar ..... 1326
Spanish Influenza—1918 ..... 1058
Up-to-Date Offices from throughout the Century ..... 808
***Aerodynamic Measures of Phonation***
Effects of Botulinum Toxin Type A Injections on Aerodynamic Measures of Spasmodic Dysphonia—Adams, SG, Durkin, LC, et al. ..... 296
***Age and Laryngeal Infection***
Age Dependency of the Composition of Immunocompetent Cells and the Expression of Adhesion Molecules in Rat Laryngeal Mucosa—Jecker, P, Ptok, M, et al. ..... 733
***Age-Related Nasal Problems***
Aging of the Normal Nose in Adults—Edelstein, DR ..... Suppl 81
***AIDS***
Laryngeal Tuberculosis in HIV-Infected Patients: A difficult Diagnosis—Singh, B, Balwally, AN, et al. ..... 1238
Microsporidian Sinusitis in Patients with the Acquired Immunodeficiency Syndrome—Rossi, RM, Wanke, C, et al. ..... 966
Safety Awareness for the Otolaryngologist Caring for the HIV-Positive Patient—Kantu, S, Lee, D, et al. ..... 982
***Airway Obstruction***
Management of Airway Obstruction in Cicatricial Pemphigoid—Lazor, JB, Varvares, MA, et al. ..... 1014
***Airway Surgery***
Evaluation of a New Laser-Resistant Fabric and Copper Foil–Wrapped Endotracheal Tube—Sosis, MB, Braverman, B, et al. ..... 842
***Alaryngeal Speakers***
Vocal Capacities in Esophageal and Tracheoesophageal Speakers—Max, L, Steurs, W, et al. ..... 93
***Allergic Fungal Sinusitis***
Antifungal Activity Against Allergic Fungal Sinusitis Organisms—Bent JP III, Kuhn, FA ..... 1331
***Allergic Rhinitis***
Quantitative Cytology of Nasal Secretions and Scrapings in Japanese Cedar Pollinosis Patients—Takeuchi, K, Ukai, K, et al. ..... 1419
***Allergy***
Association of Otitis Media With Effusion and Allergy as Demonstrated by Intradermal Skin Testing and Eosinophil Cationic Protein Levels in Both Middle Ear Effusions and Mucosal Biopsies—Hurst, DS ..... 1128
***Allograft Banking***
Influence of Chemical Allograft Preservation Procedures on the Human Immunodeficiency Virus—Bujía, J, Wilmes, E, et al. .. 645
***Alternative Medical Therapies***
Ear Candles—Efficacy and Safety—Seely, DR, Quigley, SM, et al. 1226
***Alzheimer's Disease***
Temporal Bone Findings in Alzheimer's Disease—Sinha, UK, Saadat, D, et al. ..... 1
***Aminoglycoside Antibiotics***
Effect of Cortisporin Otic Suspension on Cochlear Function and Efferent Activity in the Guinea Pig—Perry, BP, Smith, DW .... 1557
***Aminoglycoside Vestibulotoxicity***
Quantitative Study of Vestibulotoxicity Induced by Gentamicin or Cisplatin in the Guinea Pig—Nakayama, M, Riggs, LC, et al. 162
***Angiocentric T-Cell Lymphomas***
Nasal and Nasopharyngeal Angiocentric T-Cell Lymphomas—Davison, SP, Habermann, TM, et al. ..... 139
***Angiography***
Angiography and Transcatheter Arterial Embolization of Vascular Injuries of the Face and Neck—Sclafani, AP, Sclafani, SJA . 168
***Ankylosis***
Cricoarytenoid Joint Mobility After Chronic Vocal Cord Paralysis—Gacek, M, Gacek, RR ..... 1528
***Ansa Cervicalis***
Experimental Study on Reinnervation of Vocal Cord Adductors With the Ansa Cervicalis—Zheng, H, Li, Z, et al. ..... 1516
Update: Laryngeal Reinnervation for Unilateral Vocal Cord Paralysis With the Ansa Cervicalis—Zheng, H, Li, Z, et al. ..... 1522
***Anterior Commissure Carcinoma***
Combined Endoscopic $CO_2$ Laser and External Approach for Treatment of Glottic Cancer Involving the Anterior Commissure: An Animal Study—Shapshay, SM, Wang, Z, et al. ..... 273
***Anthracyclines***
Laser Photochemotherapy With Anthracytes on Cultured Human Squamous Cell Carcinoma Cells—Paiva, MB, Saxton, RE, et al. ..... 257
***Anthraquinones***
Hypericin: A New Laser Phototargeting Agent for Human Cancer Cells—VanderWerf, QM, Saxton, RE, et al. ..... 479

***Antireflux Treatment***
Paroxysmal Laryngospasm Secondary to Gastroesophageal Reflux—Loughlin, CJ, Koufman, JA ..... 1502
***Antrostomy***
Extended Middle Meatal Antrostomy: The Prevention of Circular Flow—Coleman, JR Jr, Duncavage, JA ..... 1214
***Apneic Anesthesia With Intermittent Ventilation***
Apneic Anesthesia With Intermittent Ventilation for Microsurgery of the Upper Airway—Weisberger, EC, Emhardt, JD .. 1099
***Apoptosis***
Regulation of Transforming Growth Factor-β1–Mediated Apoptosis in Head and Neck Squamous Cell Carcinoma—Duffey, DC, Calcaterra, TC, et al. ..... 889
***Arachidonic Acid Metabolites***
Inhibition of Head and Neck Tumor Cell Growth With Arachidonic Acid Metabolism Inhibition—Ondrey, FG, Juhn, SK, et al. .. 129
***Arginine Vasopressin***
Elevated Arginine Vasopressin Levels in Squamous Cell Cancer of the Head and Neck—Talmi, YP, Wolf, GT, et al. ..... 317
***Aseptic Necrosis***
Lipoid Meningitis Due to Aseptic Necrosis of a Free Fat Graft Placed During Neurotologic Surgery—Hwang, PH, Jackler, RK ..... 1482
***Aspirin Triad Syndrome***
Orbital Complications of Sinusitis in the Aspirin Triad Syndrome—McFadden, EA, Woodson, BT, et al. ..... 1103
***Assessment of Facial Function***
Computer-Assisted Clinimetric Tool for the Study of Facial Expression: A Pilot Validity Study—Holman, ML, Neely, JG, et al. 135
Quantitative Assessment of the Variation Within Grades of Facial Paralysis—Neely, JG, Joaquin, AH, et al. ..... 438
***Atelectasis***
Pulmonary Atelectasis After Reconstruction With a Latissimus Dorsi Myocutaneous Flap—Wax, MK, Hurst, J ..... 268
***Atherosclerosis***
Brainstem Auditory Evoked Potentials in Patients With Ischemic Heart Disease—Karamitsos, DG, Kounis, NG, et al. ..... 54
***Atrophic Rhinitis***
Triosite Implants and Fibrin Glue in the Treatment of Atrophic Rhinitis: Technique and Results—Bertrand, B, Doyen, A, et al. ..... 652
***Auditory Brainstem Response***
Age-Related Alterations in the Auditory Brainstem Responses and the Compound Action Potentials in Guinea Pigs—Nozawa, I, Imamura, S-I, et al. ..... 1034
***Auditory Development***
Distortion Generated by the Ear: Its Emergence and Evolution During Development—Tubach, M, McGee, J, et al. ..... 822
***Auricular Cancer***
Regional Spread of Auricular and Periauricular Cutaneous Malignancies—Lee, D, Nash, M, et al. ..... 998
***Auricular Reconstruction***
Auricular Reconstruction of Congenital Microtia (Grade III)—Aguilar, EF III ..... Suppl 82
***Auricular Wedge Defects***
J-Shaped, Conchal Excision With Rotation Advancement for Closure of Large, Auricular Wedge Defects—Chiu, LD, Barber, W, et al. ..... 116
***Autogenous Fat***
Vocal Cord Injection With Autogenous Fat: A Long-term Magnetic Resonance Imaging Evaluation—Brandenburg, JH, Unger, JM, et al. ..... 174
***Autonomic Neurotransmitters***
Basic Innervation Pattern and Distribution of Classic Autonomic Neurotransmitters in Human Nasal Mucosal Vasculature—Riederer, A, Fischer, A, et al. ..... 286
***Avascular Tympanojugular Paraganglioma***
Avascular Tympanojugular Paraganglioma—Balli, R, Dallari, S, et al. ..... 721

## B

***BB5-G1***
Parathyroid Visualization with Cibacron Blue/BB5-G1—King, RC, Mills, SL, et al. ..... 1365
***Basal Cell Carcinoma***
Temporal Bone Carcinoma: Contemporary Perspectives in the Skull Base Surgical Era—Pensak, ML, Gleich, LL, et al. ..... 1234
***Base of Tongue Tumors***
Transpharyngeal Approach to Base of Tongue Tumors: A Comparative Study—Nasri, S, Oh, Y, et al. ..... 945
***Bell's Palsy***
Impaired Ranvier Node Sodium-Potassium Adenosine Triphosphatase May Induce Facial Palsy—Kanoh, N, Sakagami, M ... 1180
***Benzalkonium Chloride***
Effect on the Nasal Mucosa of Long-Term Treatment with Oxymetazoline, Benzalkonium Chloride and Placebo Nasal Sprays—Graf, P, Hallén, H ..... 605
***Beta-2 Transferrin***
Beta-2 Transferrin: Limitations of Use As a Clinical Marker for Perilymph—Levenson, MJ, Desloge, RB, et al. ..... 159
***Bilateral Sensorineural Hearing Loss***
Sudden Bilateral Sensorineural Hearing Loss—Fetterman, BL, Luxford, WM, et al. ..... 1347
***Blowout Fractures***
Microsurgical Intranasal Reconstruction of Isolated Blowout Fractures of the Medial Orbital Wall—Jeon, S, Kim, C, et al. .. 910
***Bony Choanal Atresia***
Choanal Atresia: A New Anatomic Classification and Clinical Management Applications—Brown, OE, Pownell, P, et al. ..... 97
***Botulinum Toxin Type A***
Alternating Unilateral Botulinum Toxin Type A (BOTOX®) Injections for Spasmodic Dysphonia—Koriwchak, MJ, Netterville, JL, et al. ..... 1476
Effects of Botulinum Toxin Type A Injections on Aerodynamic Measures of Spasmodic Dysphonia—Adams, SG, Durkin, LC, et al. ..... 296
Swallowing Side Effects of Botulinum Toxin Type A Injection in Spasmodic Dysphonia—Holzer, SES, Ludlow, CL ..... 86
***Brain-Derived Neurotrophic Factor***
Brain-Derived Neurotrophic Factor and Peripheral Nerve Regeneration: A Functional Evaluation—Shirley, DM, Williams, SA, et al. ..... 629
***Brainstem Auditory Evoked Potentials***
Brainstem Auditory Evoked Potentials in Patients With Ischemic Heart Disease—Karamitsos, DG, Kounis, NG, et al. ..... 54
***Buccopharyngeal Squamous Cell Carcinoma***
Transpharyngeal Approach to Base of Tongue Tumors: A Comparative Study—Nasri, S, Oh, Y, et al. ..... 945
***Bupivacaine***
Bupivacaine for Postoperative Analgesia Following Endoscopic Sinus Surgery—Friedman, M, Venkatesan, TK, et al. ..... 1382

## C

***C3-Related Fragments***
Human Nasal Epithelium Adsorbs Complement C3-Related Fragments and Expresses Cell-Membrane Complement Regulatory Proteins—Varsano, S, Frolkis, I, et al. ..... 599
***Calcium Channel Blocker***
Diltiazem Does Not Protect the Ear from Noise-Induced Hearing Loss in Mongolian Gerbils—Boettcher, FA ..... 772
***Cancer Staging***
Predicting Distant Failure in Nasopharyngeal Cancer—Koukourakis, MI, Whitehouse, RM, et al. ..... 765
***Cancer Treatment***
Factors Related to Quality of Life and Functional Status in 50 Patients With Head and Neck Cancer—Long, SA, D'Antonio, LL, et al. ..... 1084
***Caustic Material Ingestion***
Speech and Swallowing Rehabilitation Following Devastating Caustic Ingestion: Techniques and Indicators for Success—Shikowitz, MJ, Levy, J, et al. ..... Suppl 78
***Centennial Highlights***
Laryngoscopy and Laryngoscopes—Who's First?: The Forefathers/Four Fathers of Laryngology—Bailey, BJ ..... 939
Tribute to Max Goldstein, MD, Founder and Editor of The Laryngoscope—Bailey, BJ ..... 535
***Century of Progress***
Age of the Medical Education Revolution—Alford, BR ..... 801
Edmund Prince Fowler Award—Sasaki, CT ..... 1463
Evolution of Head and Neck Surgery—Myers, EN ..... 929
Evolution of Research in Otolaryngology—Head and Neck Surgery Over the Past Century—Snow, JB Jr ..... 529
Harris Peyton Mosher: The Man Behind the Award—Jahrsdoerfer, RA ..... 1323

History of Laryngology in the United States—Woodson, GE ..... 677
Perspective on the History of the Academic Health Center—Johns, ME ..... 1059
Turn of the Century Facial Plastic Surgeons and The LARYNGOSCOPE—Crumley, R ..... 1199
***Cerebellopontine Angle Tumors***
Acoustic Reflexes, Auditory Brainstem Response, and MRI in the Evaluation of Acoustic Neuromas—Burkey, JM, Rizer, FM, et al. ..... 839
Evolution of the Management of Hydrocephalus Associated With Acoustic Neuroma—Atlas, MD, Perez de Tagle, JRV, et al. ..... 204
Predictive Value of Facial Nerve Electrophysiologic Stimulation Thresholds in Cerebellopontine-Angle Surgery—Selesnick, SH, Carew, JF, et al. ..... 633
***Cerebrospinal Fluid***
Beta-2 Transferrin: Limitations of Use As a Clinical Marker for Perilymph—Levenson, MJ, Desloge, RB, et al. ..... 159
***Cerebrospinal Fluid Leak***
Cerebrospinal Fluid Drainage in the Management of CSF Leak Following Acoustic Neuroma Surgery—Fishman, AJ, Hoffman, RA, et al. ..... 1002
Preventive Management of Cerebrospinal Fluid Leak in Translabyrinthine Surgery—Meyerson, LR, Monsell, EM, et al. ..... 610
***Cerebrospinal Fluid Rhinorrhea***
Endoscopic Repair of Cerebrospinal Fluid Fistulae and Encephaloceles—Lanza, DC, O'Brien, DA, et al. ..... 1119
Obliteration of the Eustachian Tube Using Hydroxyapatite Cement: A Permanent Technique—Kveton, JF ..... 1241
Transnasal Endoscopic Repair of Cerebrospinal Fluid Rhinorrhea: An Interposition Technique—Hao, SP ..... 501
Transnasal Endoscopic Repair of Cranionasal Fistulae: A Refined Technique With Long-term Follow-up—Burns, JA, Dodson, EE, et al. ..... 1080
***Cerumen Removal***
Ear Candles—Efficacy and Safety—Seely, DR, Quigley, SM, et al. 1226
***Cervical Sympathetic Chain***
Differentiation Between Schwannoma of the Vagus Nerve and Schwannoma of the Cervical Sympathetic Chain by Imaging Diagnosis—Furukawa, M, Furukawa, MK, et al. ..... 1548
***Cervical Thymic Cysts***
Cervical Thymic Cyst: Case Reports and Review of the Literature— Nguyen, Q, deTar, M, et al. ..... 247
***Cervical Tracheoesophageal Fistulae***
Staged Repair of Cervical Tracheoesophageal Fistulae—Shaari, CM, Biller, HF ..... 1398
***Chemical Allograft Preservation***
Influence of Chemical Allograft Preservation Procedures on the Human Immunodeficiency Virus—Bujía, J, Wilmes, E, et al. .. 645
***Chemodectomas***
Avascular Tympanojugular Paraganglioma—Balli, R, Dallari, S, et al. ..... 721
***Chemotherapy***
Predicting Distant Failure in Nasopharyngeal Cancer—Koukourakis, MI, Whitehouse, RM, et al. ..... 765
Swallowing Disorders in Head and Neck Cancer Patients Treated With Radiotherapy and Adjuvant Chemotherapy—Lazarus, CL, Logemann, JA, et al. ..... 1157
***Choanal Atresia***
Choanal Atresia: A New Anatomic Classification and Clinical Management Applications—Brown, OE, Pownell, P, et al. ..... 97
***Cholesteatoma***
Immunobiological Peculiarities of Cholesteatoma in Children: Quantification of Epithelial Proliferation by MIB-1—Bujía, J, Holly, A, et al. ..... 865
Mastoid Surgery in the Only Hearing Ear—Perez de Tagle, JRV, Fenton, JE, et al. ..... 67
Quantitative Analysis of Interleukin-1-Alpha Gene Expression in Middle Ear Cholesteatoma—Bujía, J, Kim, C, et al. ..... 217
***Chronic Maxillary Atelectasis***
Manometric Study of Complete Ostial Occlusion in Chronic Maxillary Atelectasis—Kass, ES, Salman, S, et al. ..... 1255
***Chronic Maxillary Sinusitis***
Extended Middle Meatal Antrostomy: The Prevention of Circular Flow—Coleman, JR Jr, Duncavage, JA ..... 1214
***Chronic Otitis Externa***
Foot and Ear Disease—The Dermatophytid Reaction in Otology—Derebery, MJ, Berliner, KI ..... 181
***Chronic Rhinocerebral Mucormycosis***
Chronic Rhinocerebral Mucormycosis—Harrill, WC, Stewart, MG, et al. ..... 1292
***Chronic Tympanic Membrane Perforation***
Structural Characterization of Persistent Tympanic Membrane Perforations in Man—Spandow, O, Hellström, S, et al. ..... 346
***Cibacron Blue***
Parathyroid Visualization with Cibacron Blue/BB5-G1—King, RC, Mills, SL, et al. ..... 1365
***Cicatricial Pemphigoid***
Management of Airway Obstruction in Cicatricial Pemphigoid—Lazor, JB, Varvares, MA, et al. ..... 1014
***Ciliated Tracheal Epithelium***
Mucociliary Clearance Following Segmental Tracheal Reversal—Delaere, PR, Liu, Z, et al. ..... 450
***Circle of Willis***
Evaluation of the Vestibular System by Magnetic Resonance Angiography—Welsh, LW, Welsh, JJ, et al. ..... 1138
***Circumferential Tracheal Segment***
Tracheal Neovascularization: A Method Involving Mobilization of a Complete Tracheal Neovascularized Segment Using a Sternohyoid Muscle Flap—de Mello-Filho, FV, Mamede, RCM, et al. 81
***Cisplatin***
"Decadose" Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract I Histoculture Experiments—Robbins, KT, Hoffman, RM ..... 32
"Decadose" Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract II Clinical Studies—Robbins, KT, Storniolo, AM, et al. ..... 37
Ototoxicity Resulting From Combined Administration of Cisplatin and Gentamicin—Riggs, LC, Brummett, RE, et al. ..... 401
Quantitative Study of Vestibulotoxicity Induced by Gentamicin or Cisplatin in the Guinea Pig—Nakayama, M, Riggs, LC, et al. 162
***Classics from The LARYNGOSCOPE***
Alford and Guilford: "A Comprehensive Study of Tumors of the Glomus Jugulare" (LARYNGOSCOPE 1962;72:765–787)—Pensak, ML ..... 1063
Bluestone, et al.: "Audiometry and Tympanometry in Relation to Middle Ear Effusions in Children" (LARYNGOSCOPE 1973;83:594-604)—Meyerhoff, WL ..... 684
Hilger: "The Nature of Bell's Palsy" (LARYNGOSCOPE 1949;59:228-235)—Gacek, RR ..... 1465
House: "Surgical Exposure of the Internal Auditory Canal and Its Contents Through the Middle Cranial Fossa" (LARYNGOSCOPE 1961:71:1363-1385)—Lambert, PR ..... 1195
Jako: "Laser Surgery of the Vocal Cords; An Experimental Study With Carbon Dioxide Lasers on Dogs." (LARYNGOSCOPE. 1972;82:2204-2216)—Shapshay, SM ..... 935
James R Chandler: "Malignant External Otitis" (LARYNGOSCOPE 1968;78:1257-1294)—Lucente, FE, Parisier, SC ..... 805
Lorente de No's "Anatomy of the eighth nerve I The central projection of the nerve endings of the internal ear; III General plan of structure of the primary cochlear nuclei"—Pillsbury, HC III . 533
Schuknecht: "Presbycusis" (LARYNGOSCOPE 1955;65:402-419)—Nadol, JB Jr ..... 1327
***Clinimetrics***
Computer-Assisted Clinimetric Tool for the Study of Facial Expression: A Pilot Validity Study—Holman, ML, Neely, JG, et al. 135
Quantitative Assessment of the Variation Within Grades of Facial Paralysis—Neely, JG, Joaquin, AH, et al. ..... 438
***$CO_2$ Laser***
Thermal Injury Patterns and Tensile Strength of Canine Oral Mucosa after Carbon Dioxide Laser Incisions—Speyer, MI, Joe, J, et al. ..... 845
***Cocaine***
Absorption of Topical Cocaine in Rhinologic Procedures CDR(sel)—Greinwald JH Jr, Holtel, CDR MR ..... 1223
***Cochlea***
Distortion Generated by the Ear: Its Emergence and Evolution During Development—Tubach, M, McGee, J, et al. ..... 822
***Cochlear Infection***
Late Sequelae of Cochlear Infection—Keithley, EM, Harris, JP .. 341
***Cochlear Implantation***
Cochlear Implantation in a Pacemaker Patient—Triglia, J-M, Beliaeff, M, et al. ..... 1184
Cochlear Implantation in Radical Cavities of Mastoidectomy—

Manrique, M, Cervera-Paz, FJ, et al. ..... 1562
Cost Utility of the Multichannel Cochlear Implant in 258 Profoundly Deaf Individuals—Wyatt, JR, Niparko, JK, et al. ..... 816
Development of the Facial Recess: Implications for Cochlear Implantation—Eby, TL ..... Suppl 80
Otitis Media in Children With Cochlear Implants—Luntz, M, Hodges, AV, et al. ..... 1403
Simple Procedure to Prevent Protrusion of the Internal Receiver of a Cochlear Implant—Gyo, K, Sato, H, et al. ..... 1566
***Cochlear Mitochondrial DNA***
Association of Mitochondrial DNA Deletions and Cochlear Pathology: A Molecular Biologic Tool—Seidman, MD, Bai, U, et al. ..... 777
***Cold Instruments***
Laser Versus Cold Instruments for Microlaryngoscopic Surgery—Zeitels, SM ..... 545
***Comments of the Guest of Honor***
Pursuit of Excellence—Is It Still Possible?—Alford, BR ..... 1266
***Communicating Vein***
Communicating Vein and Its Use in the Radial Forearm Free Flap—Valentino, J, Funk, GF, et al. ..... 648
***Complete Ostial Occlusion***
Manometric Study of Complete Ostial Occlusion in Chronic Maxillary Atelectasis—Kass, ES, Salman, S, et al. ..... 1255
***Compound Action Potentials***
Age-Related Alterations in the Auditory Brainstem Responses and the Compound Action Potentials in Guinea Pigs—Nozawa, I, Imamura, S-I, et al. ..... 1034
***Computed Tomography***
Comparison of Clinical Evaluation and Computed Tomographic Diagnostic Accuracy for Tumors of the Larynx and Hypopharynx—Thabet, HM, Sessions, DG, et al. ..... 589
Efficacy of Transcutaneous Computed Tomography–Guided Fine Needle Aspiration Biopsy in Patients With Laryngeal Squamous Cell Carcinoma, Probable Failed Radiation Therapy, and Negative Transmucosal Biopsies—Citardi, MJ, Abrahams, JJ, et al. ..... 1244
Histopathology and CT Analysis of Partially Resected Middle Turbinates—Biedlingmaier, JF, Whelan, P, et al. ..... 102
Three-Dimensional Computed Imaging Using a Personal Computer for Nasal Surgery—Tsunoda, A, Komatsuzaki, A, et al. 584
***Conchal Excision***
J-Shaped, Conchal Excision With Rotation Advancement for Closure of Large, Auricular Wedge Defects—Chiu, LD, Barber, W, et al. ..... 116
***Congenital Microtia***
Auricular Reconstruction of Congenital Microtia (Grade III)—Aguilar, EF III ..... Suppl 82
***Conley, John***
John Conley, MD: An Issue of Special Recognition—Bailey, BJ, et al. ..... 385
***Conservation Laryngeal Surgery***
Management of Carcinoma of the Supraglottic Larynx: Evolution, Current Concepts, and Future Trends—Myers, EN, Alvi, A ..... 559
***Constant Air Pressure Source***
Characteristics of an In Vivo Canine Model of Phonation With a Constant Air Pressure Source—Nasri, S, Namazie, A, et al. ... 745
***Continuous Lumbar Cerebrospinal Fluid Drainage***
Cerebrospinal Fluid Drainage in the Management of CSF Leak Following Acoustic Neuroma Surgery—Fishman, AJ, Hoffman, RA, et al. ..... 1002
***Contraction Patterns***
Contraction Patterns of Intrinsic Laryngeal Muscles Induced by Orderly Recruitment in the Canine—Broniatowski, M, Vito, KJ, et al. ..... 1510
***Cortisporin Otic Suspension***
Effect of Cortisporin Otic Suspension on Cochlear Function and Efferent Activity in the Guinea Pig—Perry, BP, Smith, DW .... 1557
***Cost Utility Analysis***
Cost Utility of the Multichannel Cochlear Implant in 258 Profoundly Deaf Individuals—Wyatt, JR, Niparko, JK, et al. ..... 816
***Craniofacial Resection***
Enhanced Magnetic Resonance Imaging and Subtraction Techniques in the Postoperative Evaluation of Craniofacial Resection for Sinonasal Malignancy—Lund, VJ, Lloyd, GAS, et al. .. 552
***Cranionasal Fistulae***
Transnasal Endoscopic Repair of Cranionasal Fistulae: A Refined Technique With Long-term Follow-up—Burns, JA, Dodson, EE, et al. ..... 1080
***Cricoarytenoid Joint***
Cricoarytenoid Joint Mobility After Chronic Vocal Cord Paralysis—Gacek, M, Gacek, RR ..... 1528
***Cricopharyngeus Muscle***
Myology of the Pharyngoesophageal Segment: Gross Anatomic and Histologic Characteristics—Kelly, JH, Kuncl, RW ..... 713
***Cross-Cultural Smell Identification Test***
Development of the 12-Item Cross-Cultural Smell Identification Test (CC-SIT)—Doty, RL, Marcus, A, et al. ..... 353
***Cutaneous Melanoma***
Metastatic Neoplasms to the Larynx: Report of Three Cases—Nicolai, P, Puxeddu, R, et al. ..... 851
Regional Spread of Auricular and Periauricular Cutaneous Malignancies—Lee, D, Nash, M, et al. ..... 998
***Cystic Fibrosis***
Endoscopic Sinus Surgery in the Treatment of Cystic Fibrosis With Nasal Polyposis—Rowe-Jones, JM, Mackay, IS ..... 1540
Patterns of Sinusitis in Cystic Fibrosis—Gentile, VG, Isaacson, G ..... 1005
***Cytokeratin Expression***
Epidermal Differentiation in the Human External Auditory Meatus—Vennix, PPCA, Kuijpers, W, et al. ..... 470
***Cytomegalovirus***
Late Sequelae of Cochlear Infection—Keithley, EM, Harris, JP .. 341

## D

***Dacryocystorhinostomy***
Endoscopic Dacryocystorhinostomy: Surgical Technique and Results—Sprekelsen, MB, Barberán, MT ..... 187
***Deglutitive Vocal Fold Closure***
Echo-Planar Magnetic Resonance Imaging of Deglutitive Vocal Fold Closure: Normal and Pathologic Patterns of Displacement—Gilbert, RJ, Daftary, S ..... 568
***Deltopectoral Skin Flaps***
Enhanced Reliability and Renewed Applications of the Deltopectoral Flap in Head and Neck Reconstruction—Kingdom, TT, Singer, MI ..... 1230
***Dermatophytid Reaction***
Foot and Ear Disease—The Dermatophytid Reaction in Otology—Derebery, MJ, Berliner, KI ..... 181
***Developmentally Delayed Children***
Endoscopic Sinus Surgery in the Developmentally Delayed Child—Ramadan, HH, Rosen, D ..... 121
***Diabetes***
Auditory Findings in Patients with Maternally Inherited Diabetes and Deafness Harboring a Point Mutation in the Mitochondrial Transfer $RNA^{Leu(UUR)}$ Gene—Yamasoba, T, Oka, Y, et al. ..... 49
Bilateral Sensorineural Hearing Loss Associated With the Point Mutation in Mitochondrial Genome—Oshima, T, Ueda, N, et al. ..... 43
***Diltiazem***
Diltiazem Does Not Protect the Ear from Noise-Induced Hearing Loss in Mongolian Gerbils—Boettcher, FA ..... 772
***Direct Laryngoscopy***
Indirect Larynx and Pharynx Surgery: A Replacement for Direct Laryngoscopy—Bastian, RW, Delsupehe, KG ..... 1280
***Dizziness***
Oculocephalic Response in the Evaluation of the Dizzy Patient—Harvey, SA, Wood, DJ ..... 6
***DNA Ploidy***
Retrospective DNA Ploidy Analysis by Image and Flow Cytometry in Head and Neck Cancer—Epp, RA, Justice, WM, et al. ... 1306
***Dohlman Procedure***
Endoscopic Staple-Assisted Esophagodiverticulostomy for Zenker's Diverticulum—Scher, RL, Richtsmeier, WJ ..... 951

## E

***Ear Candles***
Ear Candles—Efficacy and Safety—Seely, DR, Quigley, SM, et al. ..... 1226
***Echo-Planar Magnetic Resonance Imaging***
Echo-Planar Magnetic Resonance Imaging of Deglutitive Vocal Fold Closure: Normal and Pathologic Patterns of Displacement—Gilbert, RJ, Daftary, S ..... 568

***Efferent Suppression***
Effect of Cortisporin Otic Suspension on Cochlear Function and Efferent Activity in the Guinea Pig—Perry, BP, Smith, DW .... 1557
***Elective Neck Dissections***
Incidence of Micrometastases in Neck Dissection Specimens Obtained from Elective Neck Dissections—van den Brekel, MWM, van der Waal, I, et al. ..... 987
***Electromyography***
Intraoperative Identification of the Laryngeal Nerves Using Laryngeal Electromyography—Mermelstein, M, Nonweiler, R, et al. ..... 752
***Electrophysiologic Monitoring of RLN***
Intraoperative Electrophysiologic Monitoring of the Recurrent Laryngeal Nerve—Eisele, DW ..... 443
***Embossment***
Management of Embossment Following the Frontal Osteoplastic Operation—Lawson, W, Reino, AJ ..... 1259
***Embouchure***
Orbicularis Oris Muscle Injury in Brass Players—Papsin, BC, Maaske, LA, et al. ..... 757
***Endolymphatic Sac Epithelium***
Regeneration of the Damaged Endolymphatic Sac Epithelium—Takahashi, M, Tomiyama, S ..... 619
***Endonasal Endoscopic Surgery***
Endonasal Endoscopic Surgery for Rhinogen Intraorbital Abscess: A Report of Six Cases—Wolf, SR, Göde, U, et al. ..... 105
***Endoscopic Dacryocystorhinostomy***
Endoscopic Dacryocystorhinostomy: Surgical Technique and Results— Sprekelsen, MB, Barberán, MT ..... 187
***Endoscopic Pituitary Surgery***
Transnasal-Transsphenoidal Endoscopic Surgery of the Pituitary Gland—Carrau, RL, Jho, H-D, et al. ..... 914
***Endoscopic Repair of CSF Rhinorrhea***
Endoscopic Repair of Cerebrospinal Fluid Fistulae and Encephaloceles—Lanza, DC, O'Brien, DA, et al. ..... 1119
Transnasal Endoscopic Repair of Cerebrospinal Fluid Rhinorrhea: An Interposition Technique—Hao, SP ..... 501
Transnasal Endoscopic Repair of Cranionasal Fistulae: A Refined Technique With Long-term Follow-up—Burns, JA, Dodson, EE, et al. ..... 1080
***Endoscopic Sinus Surgery***
Bupivacaine for Postoperative Analgesia Following Endoscopic Sinus Surgery—Friedman, M, Venkatesan, TK, et al. ..... 1382
Endoscopic Sinus Surgery in the Treatment of Cystic Fibrosis With Nasal Polyposis—Rowe-Jones, JM, Mackay, IS ..... 1540
Endoscopic Sinus Surgery With Partial Middle Turbinate Resection: Effects on Olfaction—Friedman, M, Caldarelli, DD, et al. . 977
Histopathology and CT Analysis of Partially Resected Middle Turbinates—Biedlingmaier, JF, Whelan, P, et al. ..... 102
Holmium:YAG Laser Endoscopic Sinus Surgery—A Randomized, Controlled Study—Metson, R ..... Suppl 77
***Endoscopic Staple-Assisted Esophagodiverticulostomy***
Endoscopic Staple-Assisted Esophagodiverticulostomy for Zenker's Diverticulum—Scher, RL, Richtsmeier, WJ ..... 951
***Endotoxin***
Nitric Oxide: A Mediator of Endotoxin-Induced Middle Ear Effusions—Ball, SS, Prazma, J, et al. ..... 1021
Reduction of Endotoxin-Induced Inflammation of the Middle Ear by Polymyxin B—Darrow, DH, Keithley, EM ..... 1028
***Endotracheal Tube Combustion***
Evaluation of a New Laser-Resistant Fabric and Copper Foil–Wrapped Endotracheal Tube—Sosis, MB, Braverman, B, et al. ..... 842
***Enteral Nutrition Without Upper Endoscopy***
Laparoscopic Gastrostomy Versus Open Gastrostomy in Head and Neck Cancer Patients—Lydiatt, DD, Murayama, KM, et al. ..... 407
***Epidermal Growth Factor Receptor***
Epidermal Growth Factor Receptor Expression by Acoustic Neuromas— Sturgis, EM, Woll, SS, et al. ..... 457
Prognostic Value of EGFR and TGF-α in Early Laryngeal Cancer Treated With Radiotherapy—Wen, Q-H, Miwa, T, et al. ..... 884
***Epiglottitis***
Age Dependency of the Composition of Immunocompetent Cells and the Expression of Adhesion Molecules in Rat Laryngeal Mucosa—Jecker, P, Ptok, M, et al. ..... 733
Unique Case Presentations of Acute Epiglottic Swelling and a Protocol for Acute Airway Compromise—Parsons, DS, Smith, RB, et al. ..... 1287
***Epinephrine***
Optimal Concentration of Epinephrine for Vasoconstriction in Neck Surgery—Dunlevy, TM, O'Malley, TP, et al. ..... 1412
***Epithelial Cell Proliferation***
Epithelial Cell Proliferation in Nasal Polyps Regulated By Platelet-Derived Growth Factor—Coste, A, Wang, Q-P, et al. .. 578
***Epstein-Barr Virus***
Detection of Epstein-Barr Virus in Salivary Gland Specimens from Sjögren's Syndrome Patients—Merne, MET, Syrjänen, SM ..... 1534
***Erbium Laser***
Erbium Laser in Middle Ear Surgery: In Vitro and In Vivo Animal Study—Shah, UK, Poe, DS, et al. ..... 418
***Esophageal Reconstruction***
Speech and Swallowing Rehabilitation Following Devastating Caustic Ingestion: Techniques and Indicators for Success—Shikowitz, MJ, Levy, J, et al. ..... Suppl 78
***Eustachian Tube Obliteration***
Obliteration of the Eustachian Tube Using Hydroxyapatite Cement: A Permanent Technique—Kveton, JF ..... 1241
***Eustachian Tube Ventilatory Function***
Effects of Middle Ear Oxygen and Carbon Dioxide Tensions on Eustachian Tube Ventilatory Function—Shupak, A, Tabari, R, et al. ..... 221
***Examination Room Design***
Examination Room Design for the Pediatric Otolaryngology Practice—Cook, SP ..... 1049
***Excessive Daytime Somnolence***
Recognition and Surgical Management of the Upper Airway Resistance Syndrome—Newman, JP, Clerk, AA, et al. ..... 1089
***Exostoses and Osteomata***
Histopathologic Review of Temporal Bone Exostoses and Osteomata—Fenton, JE, Turner, J, et al. ..... 624
***Expanded Polytetrafluoroethylene***
Expanded Polytetrafluoroethylene Augmentation of the Lower Face— Sherris, DA, Larrabee, WF Jr ..... 658
***Experimental Acute Otitis Media***
Pathogenesis of Middle Ear Adhesions—Cayé-Thomasen, P, Hermansson, A, et al. ..... 463
***External Auditory Canal***
M-Meatoplasty of the External Auditory Canal—Mirck, PGB .... 367
***External Auditory Canal Exostoses***
Histopathologic Review of Temporal Bone Exostoses and Osteomata—Fenton, JE, Turner, J, et al. ..... 624
***External Auditory Meatus***
Epidermal Differentiation in the Human External Auditory Meatus—Vennix, PPCA, Kuijpers, W, et al. ..... 470
***Extracorporeal Shock-Wave Lithotripsy***
Extracorporeal Electromagnetic Shock-Wave Lithotripsy for Salivary Gland Stones—Ottaviani, F, Capaccio, P, et al. ..... 761
***Extranodal Rosai-Dorfman Disease***
Extranodal Rosai-Dorfman Disease of the Head and Neck—Goodnight, JW, Wang, MB, et al. ..... 253
***Eyelid Rehabilitation***
Early Eyelid Rehabilitation in Facial Nerve Paralysis—Linder, TE, Pike, VE, et al. ..... 1115

## F

***Facial Function Assessment***
Computer-Assisted Clinimetric Tool for the Study of Facial Expression: A Pilot Validity Study—Holman, ML, Neely, JG, et al. 135
Quantitative Assessment of the Variation Within Grades of Facial Paralysis—Neely, JG, Joaquin, AH, et al. ..... 438
***Facial Nerve***
Indications and Variations of Transcochlear Exposure of the Ventral Brainstem—Arriaga, LTC MA, Gorum, MAJ M ..... 639
Intratemporal Facial Nerve Perineurioma—Li, D, Schauble, B, et al. ..... 328
Predictive Value of Facial Nerve Electrophysiologic Stimulation Thresholds in Cerebellopontine-Angle Surgery—Selesnick, SH, Carew, JF, et al. ..... 633
Stylomastoid Area: Anatomic-Histologic Study and Surgical Approach— Holt, JJ ..... 396
***Facial Nerve Paralysis***
Early Eyelid Rehabilitation in Facial Nerve Paralysis—Linder,

TE, Pike, VE, et al. ..... 1115
False-Negative Magnetic Resonance Imaging in the Evaluation of Facial Nerve Paralysis—Freije, JE, Harvey, SA, et al. ..... 239
***Facial Nerve Synkinesis***
Patterns of Facial Nerve Synkinesis—Moran, CJ, Neely, JG ..... 1491
***Facial Recess Development***
Development of the Facial Recess: Implications for Cochlear Implantation—Eby, TL ..... Suppl 80
***Facial Reconstructive Surgery***
Mandibular Body Bone in Facial Plastic and Reconstructive Surgery—Li, KK, Schwartz, HC ..... 504
***Failed Chin Implants***
Use of Sliding Genioplasty for Treatment of Failed Chin Implants—Li, KK, Cheney, ML ..... 363
***Failed Radiation Therapy***
Supracricoid Partial Laryngectomy After Failed Laryngeal Radiation Therapy—Laccourreye, O, Weinstein, G, et al. ..... 495
***Fasciocutaneous Free Flap***
Extended Lateral Arm Free Flap for Head and Neck Reconstruction: The Yale Experience—Ross, DA, Thomson, JG, et al. ..... 14
***Fibrin Glue***
Triosite Implants and Fibrin Glue in the Treatment of Atrophic Rhinitis: Technique and Results—Bertrand, B, Doyen, A, et al. 652
Use of Fibrin Glue in Parotidectomy Closure—Depondt, J, Koka, VN, et al. ..... 784
***Fine-Needle Aspiration Biopsy***
Efficacy of Transcutaneous Computed Tomography–Guided Fine Needle Aspiration Biopsy in Patients With Laryngeal Squamous Cell Carcinoma, Probable Failed Radiation Therapy, and Negative Transmucosal Biopsies—Citardi, MJ, Abrahams, JJ, et al. ..... 1244
***Flexible Bronchoscopes***
Tracheobronchography in Children—Deutsch, ES, Smergel, E, et al. ..... 1248
***Flow Cytometry***
Retrospective DNA Ploidy Analysis by Image and Flow Cytometry in Head and Neck Cancer—Epp, RA, Justice, WM, et al. ... 1306
***Foot and Ear Disease***
Foot and Ear Disease—The Dermatophytid Reaction in Otology—Derebery, MJ, Berliner, KI ..... 181
***Free Fat Graft***
Lipoid Meningitis Due to Aseptic Necrosis of a Free Fat Graft Placed During Neurotologic Surgery—Hwang, PH, Jackler, RK ..... 1482
***Free Tissue Transfer***
Closure of the Fibula Free Flap Donor Site With the Sure-Closure™ Skin-Stretching Device—Futran, ND ..... 1487
Effect of Topical Vasodilating Agents on Microvascular Vessel Diameter in the Rat Model—Kerschner, JE, Futran, ND ..... 1429
***Frontal Osteoplastic Operation***
Management of Embossment Following the Frontal Osteoplastic Operation—Lawson, W, Reino, AJ ..... 1259
***Functional Endoscopic Sinus Surgery***
Acquired Maxillary Sinus Hypoplasia: A Consequence of Endoscopic Sinus Surgery?—Kosko, JR, Hall, BE, et al. ..... 1210
Criteria for Success in Pediatric Functional Endonasal Sinus Surgery—Younis, RT, Lazar, RH ..... 869
Endoscopic Sinus Surgery in the Developmentally Delayed Child— Ramadan, HH, Rosen, D ..... 121
***Functional Status***
Factors Related to Quality of Life and Functional Status in 50 Patients With Head and Neck Cancer—Long, SA, D'Antonio, LL, et al. ..... 1084
***Fungal Infection***
Chronic Rhinocerebral Mucormycosis—Harrill, WC, Stewart, MG, et al. ..... 1292

## G

***Galvanic-Induced Postural Movements***
Galvanic-Induced Postural Movements As a Test of Vestibular Function in Humans—Cass, SP, Redfern, MS, et al. ..... 423
***Gas Composition of the Sinus***
Gaseous Dynamics of the Rabbit Maxillary Sinus—Mikula, SK, Gannon, PJ, et al. ..... 152
***Gastroesophageal Reflux***
Paroxysmal Laryngospasm Secondary to Gastroesophageal Reflux—Loughlin, CJ, Koufman, JA ..... 1502
***Genioglossal Motor Axons***
Peripheral Course of Genioglossal Motor Axons Within the Hypoglossal Nerve of the Rat—Lee, S, Eisele, DW, et al. ..... 1274
***Gentamicin***
Ototoxicity Resulting From Combined Administration of Cisplatin and Gentamicin—Riggs, LC, Brummett, RE, et al. ..... 401
Quantitative Study of Vestibulotoxicity Induced by Gentamicin or Cisplatin in the Guinea Pig—Nakayama, M, Riggs, LC, et al. 162
***Geriatric Nasal Problems***
Aging of the Normal Nose in Adults—Edelstein, DR ..... Suppl 81
***Gianturco Stent***
Endoscopic Treatment of Tracheal Stenosis Using the Carbon Dioxide Laser and the Gianturco Stent: Indications and Results—Remacle, M, Lawson, G, et al. ..... 306
***Glomus Tumors***
Pediatric Neurotologic Skull Base Surgery—Jackson, CG, Pappas, DG Jr, MD, et al. ..... 1205
***Glottal Gap***
Quantitative Criteria for Predicting Thyroplasty Type I Outcome—Omori, K, Slavit, DH, et al. ..... 689
***Glottic Cancer***
Combined Endoscopic $CO_2$ Laser and External Approach for Treatment of Glottic Cancer Involving the Anterior Commissure: An Animal Study—Shapshay, SM, Wang, Z, et al. ..... 273
Effect of Overall Treatment Time of Radiation Therapy on Local Control of T1-Stage Squamous Cell Carcinoma of the Glottis—Hayakawa, K, Mitsuhashi, N, et al. ..... 1545
***Glottic Webs***
Laryngoscopic Placement of Laryngeal Keels With Percutaneous Fixation—Chiu, LD, Rasgon, BM, et al. ..... 788
***Gold-Weight Insertions***
Early Eyelid Rehabilitation in Facial Nerve Paralysis—Linder, TE, Pike, VE, et al. ..... 1115
***Growth Factors in Carcinogenesis***
Epidermal Growth Factor Receptor Expression by Acoustic Neuromas— Sturgis, EM, Woll, SS, et al. ..... 457

## H

***Headache***
Pneumatized Superior Turbinate as a Cause of Referred Migraine Headache—Clerico, DM ..... 874
***Healing***
Effects of Keratinocyte Growth Factor on Healing of Tympanic Membrane Perforations—Clymer, MA, Schwaber, MK, et al. .. 280
***Hearing Loss***
Surgical Treatment of Acoustic Neuroma (Vestibular Schwannoma) in the United States: Report from the Acoustic Neuroma Registry—Wiegand, DA, Ojemann, RG, et al. ..... 58
***HIV Transmission***
Influence of Chemical Allograft Preservation Procedures on the Human Immunodeficiency Virus—Bujía, J, Wilmes, E, et al. .. 645
Safety Awareness for the Otolaryngologist Caring for the HIV-Positive Patient—Kantu, S, Lee, D, et al. ..... 982
***Horizontal-Canal Benign Positional Vertigo***
Positional Maneuver for Treatment of Horizontal-Canal Benign Positional Vertigo—Lempert, T, Tiel-Wilck, K ..... 476
***How I Do It***
Cochlear Implantation in Radical Cavities of Mastoidectomy—Manrique, M, Cervera-Paz, FJ, et al. ..... 1562
Double V-Y Subcutaneous Island Flap—Parell, GJ, Becker, GD .. 1434
Easier Technique for Near-Total Laryngectomy—Moñux, A, Rabanal, I, et al. ..... 235
Examination Room Design for the Pediatric Otolaryngology Practice—Cook, SP ..... 1049
False-Negative Magnetic Resonance Imaging in the Evaluation of Facial Nerve Paralysis—Freije, JE, Harvey, SA, et al. ..... 239
J-Shaped, Conchal Excision With Rotation Advancement for Closure of Large, Auricular Wedge Defects—Chiu, LD, Barber, W, et al. ..... 116
Laryngoscopic Placement of Laryngeal Keels With Percutaneous Fixation—Chiu, LD, Rasgon, BM, et al. ..... 788
M-Meatoplasty of the External Auditory Canal—Mirck, PGB .... 367
Mandibular Body Bone in Facial Plastic and Reconstructive Surgery—Li, KK, Schwartz, HC ..... 504
Microsurgical Intranasal Reconstruction of Isolated Blowout Fractures of the Medial Orbital Wall—Jeon, S, Kim, C, et al. .. 910
Microvascular Access in the Multiply Operated Neck: Thora-

codorsal Transposition—Dolan, R, Gooey, J, et al. ..... 1436
Minimally Invasive Laser Surgery for the Treatment of Bilateral Vocal Cord Paralysis—Bigenzahn, W, Hoefler, H ..... 791
Necrosed Incus in Stapedectomy Revision—Seifi, AE ..... 511
New Method of Applying External Laryngeal Pressure During Microlaryngeal Surgery: The Laryngeal Strap—Corbridge, RJ, Harries, MLL ..... 499
Peripheral Nerve Monitoring in Children Undergoing Neuromuscular Blockade After Single-Stage Laryngotracheoplasty—Malis, MAJ DJ, Burton, MAJ DM ..... 919
Preservation of the Spinal Accessory Nerve in Modified Neck Dissections—Deschler, DG, Singer, MI ..... 664
Simple Procedure to Prevent Protrusion of the Internal Receiver of a Cochlear Implant—Gyo, K, Sato, H, et al. ..... 1566
Sling Stitch Endaural Meatoplasty—Tong, MCF, Liu, KC, et al. .. 1438
Sphenopalatine Artery Ligation: An Alternative to Internal Maxillary Artery Ligation for Intractable Posterior Epistaxis—Winstead, W ..... 667
Surgicel in the Control of Post-Tonsillectomy Bleeding—Goodman, RS ..... 1044
Tissue Expander Insertion Through a Mini Incision—Seikaly, H, Calhoun, KH, et al. ..... 908
Tracheostoma in Relation to Prosthetic Voice Rehabilitation—Verschuur, HP, Gregor, RT, et al. ..... 111
Transnasal Endoscopic Repair of Cerebrospinal Fluid Rhinorrhea: An Interposition Technique—Hao, SP ..... 501
Transnasal-Transsphenoidal Endoscopic Surgery of the Pituitary Gland—Carrau, RL, Jho, H-D, et al. ..... 914
Turbinate Flap for Reconstruction of Nasal Septal Mucosal Defects—Berinstein, LCDR TH, Bernstein, P ..... 1047
Two-Hole Ossiculoplasty Technique—de Varebeke, SJ, Govaerts, PJ, et al. ..... 507
Use of Fibrin Glue in Parotidectomy Closure—Depondt, J, Koka, VN, et al. ..... 784
Use of Sliding Genioplasty for Treatment of Failed Chin Implants—Li, KK, Cheney, ML ..... 363

***Human Autoimmune Inner Ear Disease***
Guinea Pig Inner Ear Antigens: Extraction and Application to the Study of Human Autoimmune Inner Ear Disease—Cao, MY, Deggouj, N, et al. ..... 207

***Human Immunodeficiency Virus***
Risk of Transmission of Human Immunodeficiency Virus Infection During Tympano-Ossicular Homograft: An Experimental Study—Meylan, PRA, Duscher, A, et al. ..... 334

***Human Nasal Epithelium***
Human Nasal Epithelium Adsorbs Complement C3-Related Fragments and Expresses Cell-Membrane Complement Regulatory Proteins—Varsano, S, Frolkis, I, et al. ..... 599

***Human Nasal Mucosa***
Basic Innervation Pattern and Distribution of Classic Autonomic Neurotransmitters in Human Nasal Mucosal Vasculature—Riederer, A, Fischer, A, et al. ..... 286

***Hydrocephalus***
Evolution of the Management of Hydrocephalus Associated With Acoustic Neuroma—Atlas, MD, Perez de Tagle, JRV, et al. ..... 204

***Hydroxy(l)apatite***
Obliteration of the Eustachian Tube Using Hydroxyapatite Cement: A Permanent Technique—Kveton, JF ..... 1241

***Hyperbaric Oxygen Therapy***
Effect of Hyperbaric Oxygenation on Existing Oral Mucosal Carcinoma—McDonald, KR, Bradfield, JJ, et al. ..... 957

***Hypericin***
Hypericin: A New Laser Phototargeting Agent for Human Cancer Cells—VanderWerf, QM, Saxton, RE, et al. ..... 479

***Hypoglossal Nerve***
Peripheral Course of Genioglossal Motor Axons Within the Hypoglossal Nerve of the Rat—Lee, S, Eisele, DW, et al. ..... 1274

***Hypopharyngeal Cancer***
Comparison of Clinical Evaluation and Computed Tomographic Diagnostic Accuracy for Tumors of the Larynx and Hypopharynx—Thabet, HM, Sessions, DG, et al. ..... 589

## *I*

***Idiopathic Facial Palsy***
Impaired Ranvier Node Sodium-Potassium Adenosine Triphosphatase May Induce Facial Palsy—Kanoh, N, Sakagami, M ... 1180

***Image-Guided Surgery***
Image-Guided Surgery in a New Magnetic Resonance Suite: Preclinical Considerations—Fried, MP, Hsu, L, et al. ..... 411

***Incus Interposition***
Two-Hole Ossiculoplasty Technique—de Varebeke, SJ, Govaerts, PJ, et al. ..... 507

***Indirect Larynx Surgery***
Indirect Larynx and Pharynx Surgery: A Replacement for Direct Laryngoscopy—Bastian, RW, Delsupehe, KG ..... 1280

***Inflammation in the Uvula Mucosa***
Inflammation in the Uvula Mucosa of Patients with Obstructive Sleep Apnea—Sekosan, M, Zakkar, M, et al. ..... 1018

***Inflammation of Cochlear Duct***
Late Sequelae of Cochlear Infection—Keithley, EM, Harris, JP .. 341

***Inflammatory Frontal Sinus Disease***
Acquired Maxillary Sinus Hypoplasia: A Consequence of Endoscopic Sinus Surgery?—Kosko, JR, Hall, BE, et al. ..... 1210
Nasofrontal Duct Reconstruction With Silicone Rubber Sheeting for Inflammatory Frontal Sinus Disease: Analysis of 164 Cases—Amble, FR, Kern, EB, et al. ..... 809

***Inherited Congenital Deafness***
Genotype-Phenotype Correlations in Type 1 Waardenburg Syndrome—Lalwani, AK, Mhatre, AN, et al. ..... 895

***Inhibition of Tumor Cell Growth***
Inhibition of Head and Neck Tumor Cell Growth With Arachidonic Acid Metabolism Inhibition—Ondrey, FG, Juhn, SK, et al. .. 129

***Injectable Bovine Collagen***
Wound Healing: Effects of Closing Tension, Zyplast™, and Platelet-Derived Growth Factor—Tzikas, MAJ TL, Burgess, LTC LPA, et al. ..... 322

***Inner Ear***
Regeneration of the Damaged Endolymphatic Sac Epithelium—Takahashi, M, Tomiyama, S ..... 619

***Inner Ear Antigens***
Guinea Pig Inner Ear Antigens: Extraction and Application to the Study of Human Autoimmune Inner Ear Disease—Cao, MY, Deggouj, N, et al. ..... 207

***Interactive Video Consultation***
Application of Telemedicine Technology for Otorhinolaryngology Diagnosis—Crump, WJ, Driscoll, B ..... 595

***Interferometric Otoscope***
Advances in the Development of the Interferometric Otoscope—Parnes, SM, Cacace, AT, et al. ..... 263

***Interferon-Gamma***
Keloid Excision and Recurrence Prophylaxis Via Intradermal Interferon-Gamma Injections: A Pilot Study—Broker, BJ, Rosen, D, et al. ..... 1497

***Interleukin-1-Alpha***
Quantitative Analysis of Interleukin-1-Alpha Gene Expression in Middle Ear Cholesteatoma—Bujía, J, Kim, C, et al. ..... 217

***Intermodulation Distortion***
Distortion Generated by the Ear: Its Emergence and Evolution During Development—Tubach, M, McGee, J, et al. ..... 822

***Intradermal Skin Testing***
Association of Otitis Media With Effusion and Allergy as Demonstrated by Intradermal Skin Testing and Eosinophil Cationic Protein Levels in Both Middle Ear Effusions and Mucosal Biopsies—Hurst, DS ..... 1128

***Intraoperative Facial Nerve Monitoring***
Predictive Value of Facial Nerve Electrophysiologic Stimulation Thresholds in Cerebellopontine-Angle Surgery—Selesnick, SH, Carew, JF, et al. ..... 633

***Intraorbital Abscess***
Endonasal Endoscopic Surgery for Rhinogen Intraorbital Abscess: A Report of Six Cases—Wolf, SR, Göde, U, et al. ..... 105

***Intratemporal Facial Nerve Tumors***
Intratemporal Facial Nerve Perineurioma—Li, D, Schauble, B, et al. ..... 328

***Ischemic Heart Disease***
Brainstem Auditory Evoked Potentials in Patients With Ischemic Heart Disease—Karamitsos, DG, Kounis, NG, et al. ..... 54

## *J*

***Japanese Cedar Pollinosis***
Quantitative Cytology of Nasal Secretions and Scrapings in Japanese Cedar Pollinosis Patients—Takeuchi, K, Ukai, K, et al. ..... 1419

***Juvenile Nasopharyngeal Angiofibromas***

Expression of Growth Factors, Proto-oncogenes, and p53 in Nasopharyngeal Angiofibromas—Nagai, MA, Butugan, O, et al. .... 190

## K

***Keloids***
Keloid Excision and Recurrence Prophylaxis Via Intradermal Interferon-Gamma Injections: A Pilot Study—Broker, BJ, Rosen, D, et al. .... 1497
***Keratinocyte Growth Factor***
Effects of Keratinocyte Growth Factor on Healing of Tympanic Membrane Perforations—Clymer, MA, Schwaber, MK, et al. .. 280
***Keratinocyte Migration***
Epidermal Differentiation in the Human External Auditory Meatus—Vennix, PPCA, Kuijpers, W, et al. .... 470
***Ketoconazole***
Antifungal Activity Against Allergic Fungal Sinusitis Organisms—Bent JP III, Kuhn, FA .... 1331
***Killian's Dehiscence***
Myology of the Pharyngoesophageal Segment: Gross Anatomic and Histologic Characteristics—Kelly, JH, Kuncl, RW .... 713

## L

***Labyrinthectomy***
Comparison of Labyrinthectomy and Vestibular Neurectomy in the Control of Vertigo—Gacek, RR, Gacek, MR .... 225
***Lacrimal Pathway Obstruction***
Endoscopic Dacryocystorhinostomy: Surgical Technique and Results—Sprekelsen, MB, Barberán, MT .... 187
***Laparoscopic Gastrostomy***
Laparoscopic Gastrostomy Versus Open Gastrostomy in Head and Neck Cancer Patients—Lydiatt, DD, Murayama, KM, et al. .... 407
***Large Vestibular Aqueduct Syndrome***
Familial Large Vestibular Aqueduct Syndrome—Griffith, AJ, Arts, HA, et al. .... 960
***Laryngeal Biomechanics***
Characteristics of an In Vivo Canine Model of Phonation With a Constant Air Pressure Source—Nasri, S, Namazie, A, et al. .... 745
***Laryngeal Cancer***
Comparison of Clinical Evaluation and Computed Tomographic Diagnostic Accuracy for Tumors of the Larynx and Hypopharynx—Thabet, HM, Sessions, DG, et al. .... 589
Efficacy of Transcutaneous Computed Tomography–Guided Fine Needle Aspiration Biopsy in Patients With Laryngeal Squamous Cell Carcinoma, Probable Failed Radiation Therapy, and Negative Transmucosal Biopsies—Citardi, MJ, Abrahams, JJ, et al. .... 1244
Supracricoid Laryngectomy With Cricohyoidopexy (CHP) in the Treatment of Laryngeal Cancer: A Functional and Oncologic Experience—de Vincentiis, M, Minni, A, et al. .... 1108
***Laryngeal Infection***
Age Dependency of the Composition of Immunocompetent Cells and the Expression of Adhesion Molecules in Rat Laryngeal Mucosa—Jecker, P, Ptok, M, et al. .... 733
***Laryngeal Keels***
Laryngoscopic Placement of Laryngeal Keels With Percutaneous Fixation—Chiu, LD, Rasgon, BM, et al. .... 788
***Laryngeal Microsurgery***
Apneic Anesthesia With Intermittent Ventilation for Microsurgery of the Upper Airway—Weisberger, EC, Emhardt, JD .. 1099
***Laryngeal Muscle Activation Abnormalities***
Laryngeal Muscle Activity During Speech Breaks in Adductor Spasmodic Dysphonia—Nash, EN, Ludlow, CL .... 484
***Laryngeal Nerve***
Intraoperative Identification of the Laryngeal Nerves Using Laryngeal Electromyography—Mermelstein, M, Nonweiler, R, et al. .... 752
***Laryngeal Pacing***
Contraction Patterns of Intrinsic Laryngeal Muscles Induced by Orderly Recruitment in the Canine—Broniatowski, M, Vito, KJ, et al. .... 1510
***Laryngeal Radiation Therapy Failure***
Supracricoid Partial Laryngectomy After Failed Laryngeal Radiation Therapy—Laccourreye, O, Weinstein, G, et al. .... 495
***Laryngeal Reinnervation***
Experimental Study on Reinnervation of Vocal Cord Adductors With the Ansa Cervicalis—Zheng, H, Li, Z, et al. .... 1516
Update: Laryngeal Reinnervation for Unilateral Vocal Cord Paralysis With the Ansa Cervicalis—Zheng, H, Li, Z, et al. .... 1522
***Laryngeal Strap***
New Method of Applying External Laryngeal Pressure During Microlaryngeal Surgery: The Laryngeal Strap—Corbridge, RJ, Harries, MLL .... 499
***Laryngeal Tuberculosis***
Laryngeal Tuberculosis in HIV-Infected Patients: A difficult Diagnosis—Singh, B, Balwally, AN, et al. .... 1238
***Laryngopharynx Surgeries***
Indirect Larynx and Pharynx Surgery: A Replacement for Direct Laryngoscopy—Bastian, RW, Delsupehe, KG .... 1280
***Laryngospasm***
Acid-Induced Laryngospasm in a Canine Model—Loughlin, CJ, Koufman, JA, et al. .... 1506
***Laryngotracheal Reconstruction***
Laryngotracheal Reconstruction Using Microplates in a Porcine Model With Subglottic Stenosis—Mitskavich, MT, Rimell, FL, et al. .... 301
***Laryngotracheoplasty***
Peripheral Nerve Monitoring in Children Undergoing Neuromuscular Blockade After Single-Stage Laryngotracheoplasty—Malis, MAJ DJ, Burton, MAJ DM .... 919
***Laser Photochemotherapy***
Laser Photochemotherapy With Anthracytes on Cultured Human Squamous Cell Carcinoma Cells—Paiva, MB, Saxton, RE, et al. .... 257
***Laser Surgery***
Combined Endoscopic $CO_2$ Laser and External Approach for Treatment of Glottic Cancer Involving the Anterior Commissure: An Animal Study—Shapshay, SM, Wang, Z, et al. .... 273
Endoscopic Treatment of Tracheal Stenosis Using the Carbon Dioxide Laser and the Gianturco Stent: Indications and Results—Remacle, M, Lawson, G, et al. .... 306
Erbium Laser in Middle Ear Surgery: In Vitro and In Vivo Animal Study—Shah, UK, Poe, DS, et al. .... 418
Evaluation of a New Laser-Resistant Fabric and Copper Foil–Wrapped Endotracheal Tube—Sosis, MB, Braverman, B, et al. .... 842
Holmium:YAG Laser Endoscopic Sinus Surgery—A Randomized, Controlled Study—Metson, R .... Suppl 77
Laser Versus Cold Instruments for Microlaryngoscopic Surgery—Zeitels, SM .... 545
Minimally Invasive Laser Surgery for the Treatment of Bilateral Vocal Cord Paralysis—Bigenzahn, W, Hoefler, H .... 791
***Laser-Assisted Tympanostomy***
Laser-Assisted Tympanostomy—Silverstein, H, Kuhn, J, et al. .. 1067
***Laser-Assisted Uvulopalatoplasty***
Characterization of Postoperative Edema Following Laser-Assisted Uvulopalatoplasty Using MRI and Polysomnography: Implications for the Outpatient Treatment of Obstructive Sleep Apnea Syndrome—Terris, DJ, Clerk, AA, et al. .... 124
Identifying Obstructive Sleep Apnea in Patients Presenting for Laser-Assisted Uvulopalatoplasty—Vaidya, AM, Petruzzelli, GJ, et al. .... 431
Laser-Assisted Uvulopalatoplasty for Obstructive Sleep Apnea—Mickelson, SA .... 10
Laser-Assisted Uvulopalatoplasty: Postoperative Complications—Walker, RP, Gopalsami, C .... 834
Laser-Assisted Uvulopalatoplasty With Nd:YAG Laser for Sleep Disorders—Hanada, T, Furuta, S, et al. .... 1531
Objective Assessment of Snoring Before and After Laser-Assisted Uvulopalatoplasty—Walker, RP, Gatti, WM, et al. .... 1372
***Lateral Arm Free Flap***
Extended Lateral Arm Free Flap for Head and Neck Reconstruction: The Yale Experience—Ross, DA, Thomson, JG, et al. .... 14
***Latissimus Dorsi Myocutaneous Flap***
Pulmonary Atelectasis After Reconstruction With a Latissimus Dorsi Myocutaneous Flap—Wax, MK, Hurst, J .... 268
***Lichen Planus***
Oral Lichen Planus and Its Association With Squamous Cell Carcinoma: An Update on Pathogenesis and Treatment Implications—Duffey, DC, Eversole, LR, et al. .... 357
***Lingual Tonsil Hypertrophy***
Lingual Tonsil Hypertrophy Producing Obstructive Sleep Apnea—Dündar, A, Özünlü, A, et al. .... 1167
***Lipoid Meningitis***

Lipoid Meningitis Due to Aseptic Necrosis of a Free Fat Graft Placed During Neurotologic Surgery—Hwang, PH, Jackler, RK ..... 1482
***Lithotripsy***
Extracorporeal Electromagnetic Shock-Wave Lithotripsy for Salivary Gland Stones—Ottaviani, F, Capaccio, P, et al. ..... 761
***Lower Face Rejuvenation***
Expanded Polytetrafluoroethylene Augmentation of the Lower Face— Sherris, DA, Larrabee, WF Jr ..... 658
***Lower Gingival Carcinoma***
Prognostic Factors Affecting Outcome in Lower Gingival Carcinoma—Overholt, SM, Eicher, SA, et al. ..... 1335
***Lung-Thorax System***
Characteristics of an In Vivo Canine Model of Phonation With a Constant Air Pressure Source—Nasri, S, Namazie, A, et al. ... 745

## M

***M-Meatoplasty***
M-Meatoplasty of the External Auditory Canal—Mirck, PGB .... 367
***Macrophages***
Effects of Macrophages on the Survival of Random Skin Flaps in Swine—Brewster, D, Cupp, C, et al. ..... 1094
***Magnetic Resonance Angiography***
Evaluation of the Vestibular System by Magnetic Resonance Angiography—Welsh, LW, Welsh, JJ, et al. ..... 1138
Syndromal Vertigo Identified by Magnetic Resonance Imaging and Angiography—Welsh, LW, Welsh, JJ, et al. ..... 1144
***Malignant External Otitis***
SPECT Gallium Scintigraphy in Malignant External Otitis: Initial Staging and Follow-up Case Reports—Stokkel, MPM, Boot, ICN, et al. ..... 338
***Malignant Tumors of the Skull Base***
Postoperative Irradiation of Patients with Malignant Tumors of the Skull Base—Paulino, AC, Marks, JE, et al. ..... 880
***Mandibular Body Bone***
Mandibular Body Bone in Facial Plastic and Reconstructive Surgery—Li, KK, Schwartz, HC ..... 504
***Mandibular Invasion***
Prognostic Factors Affecting Outcome in Lower Gingival Carcinoma—Overholt, SM, Eicher, SA, et al. ..... 1335
***Mandibular Reconstruction***
Importance of Mandibular Position in Microvascular Mandibular Reconstruction—Li, KK, Cheney, ML, et al. ..... 903
***Mastoid Tip***
Stylomastoid Area: Anatomic-Histologic Study and Surgical Approach— Holt, JJ ..... 396
***Maxillary Atelectasis***
Manometric Study of Complete Ostial Occlusion in Chronic Maxillary Atelectasis—Kass, ES, Salman, S, et al. ..... 1255
***Maxillary Sinus***
Gaseous Dynamics of the Rabbit Maxillary Sinus—Mikula, SK, Gannon, PJ, et al. ..... 152
***Maxillary Sinus Hypoplasia***
Acquired Maxillary Sinus Hypoplasia: A Consequence of Endoscopic Sinus Surgery?—Kosko, JR, Hall, BE, et al. ..... 1210
***Maxillary Sinusitis***
Microbiology of Subperiosteal Orbital Abscess and Associated Maxillary Sinusitis—Brook, I, Frazier, EH ..... 1010
***Meatal Appearance***
Sling Stitch Endaural Meatoplasty—Tong, MCF, Liu, KC, et al. .. 1438
***Melanoma Metastatic to Tonsil***
Malignant Melanoma Metastatic to the Tonsil—Aydogan, LB, Myers, JN, et al. ..... 313
***Membrane Complement Regulatory Proteins***
Human Nasal Epithelium Adsorbs Complement C3-Related Fragments and Expresses Cell-Membrane Complement Regulatory Proteins—Varsano, S, Frolkis, I, et al. ..... 599
***Membranous Choanal Atresia***
Choanal Atresia: A New Anatomic Classification and Clinical Management Applications—Brown, OE, Pownell, P, et al. ..... 97
***Meniere's Disease***
Regeneration of the Damaged Endolymphatic Sac Epithelium—Takahashi, M, Tomiyama, S ..... 619
Submillimeter Magnetic Resonance Imaging of the Temporal Bone in Meniere's Disease—Welling, DB, Clarkson, MW, et al. 1359
***Mesenchyme***
Neonatal Mesenchyme Temporal Bone Study: Typical Receding Pattern Versus Increase in Potter's Sequence—Piza, JE, Northrop, CC, et al. ..... 856
Residual Mesenchyme in Temporal Bones of Children—Kasemsuwan, K, Schachern, P, et al. ..... 1040
***Metastatic Cancer***
Metastatic Cutaneous Squamous Cell Carcinoma of the Head and Neck Region—Tavin, E, Persky, M ..... 156
Metastatic Neoplasms to the Larynx: Report of Three Cases—Nicolai, P, Puxeddu, R, et al. ..... 851
***MIB 1***
Immunobiological Peculiarities of Cholesteatoma in Children: Quantification of Epithelial Proliferation by MIB-1—Bujía, J, Holly, A, et al. ..... 865
***Microlaryngeal Surgery***
New Method of Applying External Laryngeal Pressure During Microlaryngeal Surgery: The Laryngeal Strap—Corbridge, RJ, Harries, MLL ..... 499
***Microlaryngoscopic Surgery***
Laser Versus Cold Instruments for Microlaryngoscopic Surgery—Zeitels, SM ..... 545
***Micrometastases***
Incidence of Micrometastases in Neck Dissection Specimens Obtained from Elective Neck Dissections—van den Brekel, MWM, van der Waal, I, et al. ..... 987
***Microplates***
Laryngotracheal Reconstruction Using Microplates in a Porcine Model With Subglottic Stenosis—Mitskavich, MT, Rimell, FL, et al. ..... 301
***Microsporidian Sinusitis***
Microsporidian Sinusitis in Patients with the Acquired Immunodeficiency Syndrome—Rossi, RM, Wanke, C, et al. ..... 966
***Microsurgery***
Apneic Anesthesia With Intermittent Ventilation for Microsurgery of the Upper Airway—Weisberger, EC, Emhardt, JD .. 1099
***Microsurgical Intranasal Reconstruction***
Microsurgical Intranasal Reconstruction of Isolated Blowout Fractures of the Medial Orbital Wall—Jeon, S, Kim, C, et al. .. 910
***Microvascular Free Tissue Transfer***
Effect of Topical Vasodilating Agents on Microvascular Vessel Diameter in the Rat Model—Kerschner, JE, Futran, ND ..... 1429
Importance of Mandibular Position in Microvascular Mandibular Reconstruction—Li, KK, Cheney, ML, et al. ..... 903
Microvascular Access in the Multiply Operated Neck: Thoracodorsal Transposition—Dolan, R, Gooey, J, et al. ..... 1436
***Middle Ear Adhesions***
Pathogenesis of Middle Ear Adhesions—Cayé-Thomasen, P, Hermansson, A, et al. ..... 463
***Middle Ear Cholesteatoma***
Quantitative Analysis of Interleukin-1-Alpha Gene Expression in Middle Ear Cholesteatoma—Bujía, J, Kim, C, et al. ..... 217
***Middle Ear Conductive Disorders***
Effect of Tympanic Membrane Perforation Size on Umbo Velocity in the Rat—Bigelow, DC, Swanson, PB, et al. ..... 71
***Middle Ear Disease and Cochlear Implants***
Cochlear Implantation in Radical Cavities of Mastoidectomy—Manrique, M, Cervera-Paz, FJ, et al. ..... 1562
***Middle Ear Effusion***
General Anesthesia With and Without Nitrous Oxide and the Weight of Middle Ear Effusion in Children Undergoing Adenoidectomy and Tympanostomy—Koivunen, P, Alho, O-P, et al. 724
Nitric Oxide: A Mediator of Endotoxin-Induced Middle Ear Effusions—Ball, SS, Prazma, J, et al. ..... 1021
***Middle Ear Endoscopy***
*In Vitro* and *In Vivo* Determination of the Thermal Effect of Middle Ear Endoscopy—Bottrill, I, Perrault, EF Jr, et al. ..... 213
***Middle Ear Gas Composition***
Effects of Middle Ear Oxygen and Carbon Dioxide Tensions on Eustachian Tube Ventilatory Function—Shupak, A, Tabari, R, et al. ..... 221
***Middle Ear Inflammation***
Reduction of Endotoxin-Induced Inflammation of the Middle Ear by Polymyxin B—Darrow, DH, Keithley, EM ..... 1028
Residual Mesenchyme in Temporal Bones of Children—Kasemsuwan, K, Schachern, P, et al. ..... 1040
***Middle Ear Surgery***

Erbium Laser in Middle Ear Surgery: In Vitro and In Vivo Animal Study—Shah, UK, Poe, DS, et al. ..... 418
Risk of Transmission of Human Immunodeficiency Virus Infection During Tympano-Ossicular Homograft: An Experimental Study—Meylan, PRA, Duscher, A, et al. ..... 334
***Middle Meatal Antrostomy***
Extended Middle Meatal Antrostomy: The Prevention of Circular Flow—Coleman, JR Jr, Duncavage, JA ..... 1214
***Middle Turbinates***
Histopathology and CT Analysis of Partially Resected Middle Turbinates—Biedlingmaier, JF, Whelan, P, et al. ..... 102
***Midfacial Destructive Lesions***
Nasal and Nasopharyngeal Angiocentric T-Cell Lymphomas—Davison, SP, Habermann, TM, et al. ..... 139
***Migraine Headaches***
Pneumatized Superior Turbinate as a Cause of Referred Migraine Headache—Clerico, DM ..... 874
***Mini Incision***
Tissue Expander Insertion Through a Mini Incision—Seikaly, H, Calhoun, KH, et al. ..... 908
***Mitochondrial DNA***
Association of Mitochondrial DNA Deletions and Cochlear Pathology: A Molecular Biologic Tool—Seidman, MD, Bai, U, et al. ..... 777
Auditory Findings in Patients with Maternally Inherited Diabetes and Deafness Harboring a Point Mutation in the Mitochondrial Transfer $RNA^{Leu(UUR)}$ Gene—Yamasoba, T, Oka, Y, et al. ..... 49
Bilateral Sensorineural Hearing Loss Associated With the Point Mutation in Mitochondrial Genome—Oshima, T, Ueda, N, et al. ..... 43
***Modified Neck Dissection***
Preservation of the Spinal Accessory Nerve in Modified Neck Dissections—Deschler, DG, Singer, MI ..... 664
***Motor Axons***
Peripheral Course of Genioglossal Motor Axons Within the Hypoglossal Nerve of the Rat—Lee, S, Eisele, DW, et al. ..... 1274
***MRI***
Acoustic Reflexes, Auditory Brainstem Response, and MRI in the Evaluation of Acoustic Neuromas—Burkey, JM, Rizer, FM, et al. ..... 839
Echo-Planar Magnetic Resonance Imaging of Deglutitive Vocal Fold Closure: Normal and Pathologic Patterns of Displacement—Gilbert, RJ, Daftary, S ..... 568
Enhanced Magnetic Resonance Imaging and Subtraction Techniques in the Postoperative Evaluation of Craniofacial Resection for Sinonasal Malignancy—Lund, VJ, Lloyd, GAS, et al. .. 552
False-Negative Magnetic Resonance Imaging in the Evaluation of Facial Nerve Paralysis—Freije, JE, Harvey, SA, et al. ..... 239
MRI Evaluation of Vocal Fold Paralysis Before and After Type I Thyroplasty—Bryant, NJ, Gracco, LC, et al. ..... 1386
Submillimeter Magnetic Resonance Imaging of the Temporal Bone in Meniere's Disease—Welling, DB, Clarkson, MW, et al. 1359
Syndromal Vertigo Identified by Magnetic Resonance Imaging and Angiography—Welsh, LW, Welsh, JJ, et al. ..... 1144
Vocal Cord Injection With Autogenous Fat: A Long-term Magnetic Resonance Imaging Evaluation—Brandenburg, JH, Unger, JM, et al. ..... 174
***Mucociliary Clearance***
Mucociliary Clearance Following Segmental Tracheal Reversal—Delaere, PR, Liu, Z, et al. ..... 450
Pathogenesis of Middle Ear Adhesions—Cayé-Thomasen, P, Hermansson, A, et al. ..... 463
***Mucociliary Function***
Asymmetry in the Nasal Mucociliary Transport Rate—Nuutinen, J ..... 1424
***Mucosal Absorption of Cocaine***
Absorption of Topical Cocaine in Rhinologic Procedures CDR(sel)—Greinwald JH Jr, Holtel, CDR MR ..... 1223
***Mucosal Epithelium***
Management of Airway Obstruction in Cicatricial Pemphigoid—Lazor, JB, Varvares, MA, et al. ..... 1014
***Mucosal Polyps***
Experimentally Induced Polyps in the Sinus Mucosa: A Structural Analysis of the Initial Stages—Norlander, T, Westrin, KM, et al. ..... 196
***Multi-implantation of Medical Devices***
Cochlear Implantation in a Pacemaker Patient—Triglia, J-M, Beliaeff, M, et al. ..... 1184
***Myocutaneous Flaps***
Temporal Bone Carcinoma: Contemporary Perspectives in the Skull Base Surgical Era—Pensak, ML, Gleich, LL, et al. ..... 1234
***Myringoplasty***
Structural Characterization of Persistent Tympanic Membrane Perforations in Man—Spandow, O, Hellström, S, et al. ..... 346

## N

***N-(4-hydroxyphenyl)retinamide***
Differential Effects of Retinoic Acid and N-(4-hydroxyphenyl)retinamide on Head and Neck Squamous Cell Carcinoma Cells—Eicher, SA, Lotan, R ..... 1471
***Nasal Mucociliary Transport Rate***
Asymmetry in the Nasal Mucociliary Transport Rate—Nuutinen, J ..... 1424
***Nasal Mucosa***
Effect on the Nasal Mucosa of Long-Term Treatment with Oxymetazoline, Benzalkonium Chloride and Placebo Nasal Sprays—Graf, P, Hallén, H ..... 605
***Nasal Polyposis***
Endoscopic Sinus Surgery in the Treatment of Cystic Fibrosis With Nasal Polyposis—Rowe-Jones, JM, Mackay, IS ..... 1540
***Nasal Polyps***
Epithelial Cell Proliferation in Nasal Polyps Regulated By Platelet-Derived Growth Factor—Coste, A, Wang, Q-P, et al. .. 578
***Nasal Septal Squamous Cell Carcinoma***
Nasal Septal Squamous Cell Carcinoma: A Chart Review and Meta-analysis—DiLeo, MD, Miller, RH, et al. ..... 1218
***Nasal Surgery***
Three-Dimensional Computed Imaging Using a Personal Computer for Nasal Surgery—Tsunoda, A, Komatusuzaki, A, et al. 584
***Nasal T-Cell Lymphomas***
Nasal and Nasopharyngeal Angiocentric T-Cell Lymphomas—Davison, SP, Habermann, TM, et al. ..... 139
***Nasal Vasculature***
Basic Innervation Pattern and Distribution of Classic Autonomic Neurotransmitters in Human Nasal Mucosal Vasculature—Riederer, A, Fischer, A, et al. ..... 286
***Nasofrontal Duct Reconstruction***
Nasofrontal Duct Reconstruction With Silicone Rubber Sheeting for Inflammatory Frontal Sinus Disease: Analysis of 164 Cases—Amble, FR, Kern, EB, et al. ..... 809
***Nasofrontal Duct Ventilation***
Prediction of the Clinical Outcome of Acute Frontal Sinusitis With Ventilation Measurement of the Nasofrontal Duct After Trephination: A Long-Term Follow-up Study—Sipilä, J, Suonpää, J, et al. ..... 292
***Nasopharyngeal Angiofibromas***
Expression of Growth Factors, Proto-oncogenes, and p53 in Nasopharyngeal Angiofibromas—Nagai, MA, Butugan, O, et al. ..... 190
***Nasopharyngeal Cancer***
Predicting Distant Failure in Nasopharyngeal Cancer—Koukourakis, MI, Whitehouse, RM, et al. ..... 765
***Nd:YAG Laser***
Laser-Assisted Uvulopalatoplasty With Nd:YAG Laser for Sleep Disorders—Hanada, T, Furuta, S, et al. ..... 1531
***Near Real-Time Intraoperative Imaging***
Image-Guided Surgery in a New Magnetic Resonance Suite: Preclinical Considerations—Fried, MP, Hsu, L, et al. ..... 411
***Near-Total Laryngectomy***
Easier Technique for Near-Total Laryngectomy—Moñux, A, Rabanal, I, et al. ..... 235
Near-Total Laryngectomy May Be Successful Despite Postoperative Radiation Therapy—Terris, DJ, Fee, WE Jr, et al. ..... 1152
***Neck Surgery***
Optimal Concentration of Epinephrine for Vasoconstriction in Neck Surgery—Dunlevy, TM, O'Malley, TP, et al. ..... 1412
***Necrosed Incus***
Necrosed Incus in Stapedectomy Revision—Seifi, AE ..... 511
***Nerve Repair***
Brain-Derived Neurotrophic Factor and Peripheral Nerve Regeneration: A Functional Evaluation—Shirley, DM, Williams, SA, et al. ..... 629
***Neurofibromatosis Type 2***
Growth Rate Characteristics of Acoustic Neuromas Associated

With Neurofibromatosis Type 2—Abaza, MM, Makariou, E, et al. ..... 694
***Neuromuscular Blockade***
Peripheral Nerve Monitoring in Children Undergoing Neuromuscular Blockade After Single-Stage Laryngotracheoplasty—Malis, MAJ DJ, Burton, MAJ DM ..... 919
***Neurotologic Skull Base Surgery***
Pediatric Neurotologic Skull Base Surgery—Jackson, CG, Pappas, DG Jr, MD, et al. ..... 1205
***Neutrophil-Mediated Necrosis***
Evaluation of Random Skin Flap Survival in a Porcine Model—Pratt, MF ..... 700
***Nitric Oxide***
Immunohistochemical Localization of Nitric Oxide Synthase Activity in Upper Respiratory Epithelium—Rosbe, KW, Minns, JW, et al. ..... 1075
Nitric Oxide: A Mediator of Endotoxin-Induced Middle Ear Effusions—Ball, SS, Prazma, J, et al. ..... 1021
***Nitrous Oxide***
General Anesthesia With and Without Nitrous Oxide and the Weight of Middle Ear Effusion in Children Undergoing Adenoidectomy and Tympanostomy—Koivunen, P, Alho, O-P, et al. 724
***Noise-Induced Hearing Loss***
Diltiazem Does Not Protect the Ear from Noise-Induced Hearing Loss in Mongolian Gerbils—Boettcher, FA ..... 772
***Nonivasive Radiologic Imaging***
Image-Guided Surgery in a New Magnetic Resonance Suite: Preclinical Considerations—Fried, MP, Hsu, L, et al. ..... 411
***Nontypeable* Haemophilus influenzae**
Effects of Oral and Systemic Immunization on Nasopharyngeal Clearance of Nontypeable *Haemophilus influenzae* in BALB/c Mice—Kurono, Y, Shigemi, H, et al. ..... 614
***Normal Glottal Cycle***
Quantification of Videostrobolaryngoscopic Findings—Measurements of the Normal Glottal Cycle—Woo, P .....Suppl 79
***Nuclear Hyperexcitability***
Patterns of Facial Nerve Synkinesis—Moran, CJ, Neely, JG ..... 1491
***Nystagmus***
Positional Maneuver for Treatment of Horizontal-Canal Benign Positional Vertigo—Lempert, T, Tiel-Wilck, K ..... 476

## O

***Obstructive Sleep Apnea***
Characterization of Postoperative Edema Following Laser-Assisted Uvulopalatoplasty Using MRI and Polysomnography: Implications for the Outpatient Treatment of Obstructive Sleep Apnea Syndrome—Terris, DJ, Clerk, AA, et al. ..... 124
Identifying Obstructive Sleep Apnea in Patients Presenting for Laser-Assisted Uvulopalatoplasty—Vaidya, AM, Petruzzelli, GJ, et al. ..... 431
Inflammation in the Uvula Mucosa of Patients with Obstructive Sleep Apnea—Sekosan, M, Zakkar, M, et al. ..... 1018
Laser-Assisted Uvulopalatoplasty for Obstructive Sleep Apnea—Mickelson, SA ..... 10
Laser-Assisted Uvulopalatoplasty: Postoperative Complications—Walker, RP, Gopalsami, C ..... 834
Laser-Assisted Uvulopalatoplasty With Nd:YAG Laser for Sleep Disorders—Hanada, T, Furuta, S, et al. ..... 1531
Lingual Tonsil Hypertrophy Producing Obstructive Sleep Apnea—Dündar, A, Özünlü, A, et al. ..... 1167
Screening for Obstructive Sleep Apnea in Patients Presenting for Snoring Surgery—Pradhan, PS, Gliklich, RE, et al. ..... 1393
***Oculocephalic Response***
Oculocephalic Response in the Evaluation of the Dizzy Patient—Harvey, SA, Wood, DJ ..... 6
***Ogura Memorial Lecture***
Management of Carcinoma of the Supraglottic Larynx: Evolution, Current Concepts, and Future Trends—Myers, EN, Alvi, A ..... 559
Requisites for Survival of Otolaryngology—Head and Neck Surgery—Cummings, CW ..... 1126
***Olfactory Function***
Development of the 12-Item Cross-Cultural Smell Identification Test (CC-SIT)—Doty, RL, Marcus, A, et al. ..... 353
Endoscopic Sinus Surgery With Partial Middle Turbinate Resection: Effects on Olfaction—Friedman, M, Caldarelli, DD, et al. . 977
***One-Way Speaking Valve***
Scintigraphic Quantification of Aspiration Reduction With the Passy-Muir Valve—Stachler, RJ, Hamlet, SL, et al. ..... 231
***Open Gastrostomy***
Laparoscopic Gastrostomy Versus Open Gastrostomy in Head and Neck Cancer Patients—Lydiatt, DD, Murayama, KM, et al. ..... 407
***Oral Cavity Melanoma***
Malignant Melanoma Metastatic to the Tonsil—Aydogan, LB, Myers, JN, et al. ..... 313
***Oral Immunization***
Effects of Oral and Systemic Immunization on Nasopharyngeal Clearance of Nontypeable *Haemophilus influenzae* in BALB/c Mice—Kurono, Y, Shigemi, H, et al. ..... 614
***Oral Lichen Planus***
Oral Lichen Planus and Its Association With Squamous Cell Carcinoma: An Update on Pathogenesis and Treatment Implications—Duffey, DC, Eversole, LR, et al. ..... 357
***Orbicularis Oris Muscle Injury***
Orbicularis Oris Muscle Injury in Brass Players—Papsin, BC, Maaske, LA, et al. ..... 757
***Orbital Complications***
Orbital Complications of Sinusitis in the Aspirin Triad Syndrome—McFadden, EA, Woodson, BT, et al. ..... 1103
***Orbital Pressure***
Microbiology of Subperiosteal Orbital Abscess and Associated Maxillary Sinusitis—Brook, I, Frazier, EH ..... 1010
***Organ Preservation***
Outcome of Pyriform Sinus Cancer: A Retrospective Institutional Review—Marks, SC, Lolachi, CM, et al. ..... 27
***Osteoplastic Flap Procedure***
Management of Embossment Following the Frontal Osteoplastic Operation—Lawson, W, Reino, AJ ..... 1259
***Osteoradionecrosis***
Effect of Hyperbaric Oxygenation on Existing Oral Mucosal Carcinoma—McDonald, KR, Bradfield, JJ, et al. ..... 957
***Otitis Media***
Early Otitis Media and Phonological Development at Age 2 Years—Abraham, SS, Wallace, IF ..... 727
Hearing Loss in Turner Syndrome—Sculerati, N, Oddoux, C, et al. ..... 992
Otitis Media in Children With Cochlear Implants—Luntz, M, Hodges, AV, et a ..... 1403
Tympanostomies With Tubes: The Parent Perspective—Urben, SL, Nichols, RD ..... 1269
***Otitis Media with Effusion***
Association of Otitis Media With Effusion and Allergy as Demonstrated by Intradermal Skin Testing and Eosinophil Cationic Protein Levels in Both Middle Ear Effusions and Mucosal Biopsies—Hurst, DS ..... 1128
Effects of Oral and Systemic Immunization on Nasopharyngeal Clearance of Nontypeable Haemophilus influenzae in BALB/c Mice—Kurono, Y, Shigemi, H, et al. ..... 614
***Otoimmunological Research***
Guinea Pig Inner Ear Antigens: Extraction and Application to the Study of Human Autoimmune Inner Ear Disease—Cao, MY, Deggouj, N, et al. ..... 207
***Otorhinolaryngologic Telemedicine***
Application of Telemedicine Technology for Otorhinolaryngology Diagnosis—Crump, WJ, Driscoll, B ..... 595
***Otosclerosis***
Stapedectomy in the Pediatric Patient—Murphy, TP, Wallis, DL . 1415
***Otoscopy***
Advances in the Development of the Interferometric Otoscope—Parnes, SM, Cacace, AT, et al. ..... 263
***Ototoxicity***
Ototoxicity Resulting From Combined Administration of Cisplatin and Gentamicin—Riggs, LC, Brummett, RE, et al. ..... 401
***Outpatient tonsillectomy***
Ambulatory Tonsillectomy and Adenoidectomy—Gabalski, EC, Mattucci, KF, et al. ..... 77
***Oxymetazoline***
Effect on the Nasal Mucosa of Long-Term Treatment with Oxymetazoline, Benzalkonium Chloride and Placebo Nasal Sprays—Graf, P, Hallén, H ..... 605

## P

***p53 Suppressor Genes***

Loss of Heterozygosity in Retinoblastoma and p53 Suppressor Genes as a Prognostic Indicator for Head and Neck Cancer—Gleich, LL, Li, Y-Q, et al. ..... 1378
***Pacemaker/Cochlear Implant Compatibility***
Cochlear Implantation in a Pacemaker Patient—Triglia, J-M, Beliaeff, M, et al. ..... 1184
***Papillary Tumors***
Aggressive Papillary Tumors of the Temporal Bone: An Immunohistochemical Analysis in Tissue Culture—Levin, RL, Feghali, JG, et al. ..... 144
***Paragangliomas***
Avascular Tympanojugular Paraganglioma—Balli, R, Dallari, S, et al. ..... 721
***Parathyroid Surgery***
Parathyroid Visualization with Cibacron Blue/BB5-G1—King, RC, Mills, SL, et al. ..... 1365
***Parental Perceptions of Tympanostomies***
Tympanostomies With Tubes: The Parent Perspective—Urben, SL, Nichols, RD ..... 1269
***Parosmia***
Prevalence and Assessment of Qualitative Olfactory Dysfunction in Different Age Groups—Nordin, S, Murphy, C, et al. ..... 739
***Parotidectomy Closure***
Use of Fibrin Glue in Parotidectomy Closure—Depondt, J, Koka, VN, et al. ..... 784
***Paroxysmal Laryngospasm***
Paroxysmal Laryngospasm Secondary to Gastroesophageal Reflux—Loughlin, CJ, Koufman, JA ..... 1502
***Partial Middle Turbinate Resection***
Endoscopic Sinus Surgery With Partial Middle Turbinate Resection: Effects on Olfaction—Friedman, M, Caldarelli, DD, et al. . 977
***Passy-Muir "Speaking" Valve***
Scintigraphic Quantification of Aspiration Reduction With the Passy-Muir Valve—Stachler, RJ, Hamlet, SL, et al. ..... 231
***Patient's Perspective***
Outcome of Vestibular Nerve Section for Intractable Vertigo: The Patient's Point of View—Reid, CB, Eisenberg, R, et al. ..... 1553
***Pectoralis Major Myocutaneous Flaps***
Enhanced Reliability and Renewed Applications of the Deltopectoral Flap in Head and Neck Reconstruction—Kingdom, TT, Singer, MI ..... 1230
***Pediatric Cholesteatoma***
Immunobiological Peculiarities of Cholesteatoma in Children: Quantification of Epithelial Proliferation by MIB-1—Bujía, J, Holly, A, et al. ..... 865
***Pediatric Cochlear Implantation***
Otitis Media in Children With Cochlear Implants—Luntz, M, Hodges, AV, et al. ..... 1403
***Pediatric Endoscopic Sinus Surgery***
Criteria for Success in Pediatric Functional Endonasal Sinus Surgery—Younis, RT, Lazar, RH ..... 869
Endoscopic Sinus Surgery in the Developmentally Delayed Child—Ramadan, HH, Rosen, D ..... 121
***Pediatric Neck Masses***
Cervical Thymic Cyst: Case Reports and Review of the Literature—Nguyen, Q, deTar, M, et al. ..... 247
***Pediatric Neurotologic Skull Base Surgery***
Pediatric Neurotologic Skull Base Surgery—Jackson, CG, Pappas, DG Jr, MD, et al. ..... 1205
***Pediatric Otolaryngology***
Examination Room Design for the Pediatric Otolaryngology Practice—Cook, SP ..... 1049
Projected Societal Needs in Pediatric Otolaryngology—Zalzal, GH ..... 1176
***Pediatric Stapedectomy***
Stapedectomy in the Pediatric Patient—Murphy, TP, Wallis, DL ..... 1415
***Pediatric Tracheobronchography***
Tracheobronchography in Children—Deutsch, ES, Smergel, E, et al. ..... 1248
***Penetrating Neck Trauma***
Angiography and Transcatheter Arterial Embolization of Vascular Injuries of the Face and Neck—Sclafani, AP, Sclafani, SJA ..... 168
***Periauricular Cancer***
Regional Spread of Auricular and Periauricular Cutaneous Malignancies—Lee, D, Nash, M, et al. ..... 998
***Perineurioma***
Intratemporal Facial Nerve Perineurioma—Li, D, Schauble, B, et al. ..... 328
***Peripheral Nerve Regeneration***
Brain-Derived Neurotrophic Factor and Peripheral Nerve Regeneration: A Functional Evaluation—Shirley, DM, Williams, SA, et al. ..... 629
***Phantosmia***
Prevalence and Assessment of Qualitative Olfactory Dysfunction in Different Age Groups—Nordin, S, Murphy, C, et al. ..... 739
***Pharyngeal Remnant***
Primary Closure of Pharyngeal Remnant After Total Laryngectomy and Partial Pharyngectomy: How Much Residual Mucosa Is Sufficient?—Hui, Y, Wei, WI, et al. ..... 490
***Pharyngoesophageal Segment***
Myology of the Pharyngoesophageal Segment: Gross Anatomic and Histologic Characteristics—Kelly, JH, Kuncl, RW ..... 713
***Phonation***
Laryngeal Activity During Swallow, Phonation and the Valsalva Maneuver: An Electromyographic Analysis—McColloch, TM, Perlman, AL, et al. ..... 1351
***Phonological Development***
Early Otitis Media and Phonological Development at Age 2 Years—Abraham, SS, Wallace, IF ..... 727
***Phototherapy***
Hypericin: A New Laser Phototargeting Agent for Human Cancer Cells—VanderWerf, QM, Saxton, RE, et al. ..... 479
***Pilocarpine***
Determination of the Efficacy of Topical Oral Pilocarpine for Postirradiation Xerostomia in Patients With Head and Neck Carcinoma—Hamlar, DD, Schuller, DE, et al. ..... 972
***Pituitary Gland***
Transnasal-Transsphenoidal Endoscopic Surgery of the Pituitary Gland—Carrau, RL, Jho, H-D, et al. ..... 914
***Platelet-Derived Growth Factor***
Epithelial Cell Proliferation in Nasal Polyps Regulated By Platelet-Derived Growth Factor—Coste, A, Wang, Q-P, et al. ..... 578
Wound Healing: Effects of Closing Tension, Zyplast™, and Platelet-Derived Growth Factor—Tzikas, MAJ TL, Burgess, LTC LPA, et al. ..... 322
***Polymyxin B***
Reduction of Endotoxin-Induced Inflammation of the Middle Ear by Polymyxin B—Darrow, DH, Keithley, EM ..... 1028
***Polyposis***
Patterns of Sinusitis in Cystic Fibrosis—Gentile, VG, Isaacson, G 1005
***Polyps***
Experimentally Induced Polyps in the Sinus Mucosa: A Structural Analysis of the Initial Stages—Norlander, T, Westrin, KM, et al. ..... 196
Value of Videostroboscopic Parameters in Differentiating True Vocal Fold Cysts From Polyps—Shohet, JA, Courey, MS, et al. ..... 19
***Posterior Epistaxis***
Sphenopalatine Artery Ligation: An Alternative to Internal Maxillary Artery Ligation for Intractable Posterior Epistaxis—Winstead, W ..... 667
***Postoperative Pain***
Bupivacaine for Postoperative Analgesia Following Endoscopic Sinus Surgery—Friedman, M, Venkatesan, TK, et al. ..... 1382
***Potter's Sequence***
Neonatal Mesenchyme Temporal Bone Study: Typical Receding Pattern Versus Increase in Potter's Sequence—Piza, JE, Northrop, CC, et al. ..... 856
***Prechallenge Antibodies***
Prechallenge Antibodies: Moderators of Infection Rate, Signs, and Symptoms in Adults Experimentally Challenged With Rhinovirus Type 39—Alper, CM, Doyle, WJ, et al. ..... 1298
***Presbycusis***
Age-Related Alterations in the Auditory Brainstem Responses and the Compound Action Potentials in Guinea Pigs—Nozawa, I, Imamura, S-I, et al. ..... 1034
***Profound Hearing Loss***
Cost Utility of the Multichannel Cochlear Implant in 258 Profoundly Deaf Individuals—Wyatt, JR, Niparko, JK, et al. ..... 816
Stapedectomy in Profound Cochlear Loss—Glasscock, ME III, Storper, IS, et al. ..... 831

***Programmed Cell Death***
Regulation of Transforming Growth Factor-β1–Mediated Apoptosis in Head and Neck Squamous Cell Carcinoma—Duffey, DC, Calcaterra, TC, et al. ..... 889
***Proliferative Cell Fractions***
Heterogeneity of Squamous Cell Carcinomas of the Head and Neck—Analysis of Tumor Biologic Factors and Proliferation Rates—Jacob, R, Welkoborsky, HJ, et al. ..... 1170
***Protein Markers***
Beta-2 Transferrin: Limitations of Use As a Clinical Marker for Perilymph—Levenson, MJ, Desloge, RB, et al. ..... 159
***Proto-oncogenes***
Expression of Growth Factors, Proto-oncogenes, and p53 in Nasopharyngeal Angiofibromas—Nagai, MA, Butugan, O, et al. ..... 190
***Protrusion Prevention***
Simple Procedure to Prevent Protrusion of the Internal Receiver of a Cochlear Implant—Gyo, K, Sato, H, et al. ..... 1566
***Proximal Mandibular Segment Stabilization***
Importance of Mandibular Position in Microvascular Mandibular Reconstruction—Li, KK, Cheney, ML, et al. ..... 903
***Pulmonary Atelectasis***
Pulmonary Atelectasis After Reconstruction With a Latissimus Dorsi Myocutaneous Flap—Wax, MK, Hurst, J ..... 268
***Pyriform Sinus Cancer***
Outcome of Pyriform Sinus Cancer: A Retrospective Institutional Review—Marks, SC, Lolachi, CM, et al. ..... 27

## Q

***Qualitative Olfactory Dysfunction***
Prevalence and Assessment of Qualitative Olfactory Dysfunction in Different Age Groups—Nordin, S, Murphy, C, et al. ..... 739
***Quality of Life***
Factors Related to Quality of Life and Functional Status in 50 Patients With Head and Neck Cancer—Long, SA, D'Antonio, LL, et al. ..... 1084
***Quantitative Cytology***
Quantitative Cytology of Nasal Secretions and Scrapings in Japanese Cedar Pollinosis Patients—Takeuchi, K, Ukai, K, et al. ..... 1419

## R

***Radial Forearm Free Flap***
Communicating Vein and Its Use in the Radial Forearm Free Flap—Valentino, J, Funk, GF, et al. ..... 648
***Radiation Therapy***
Effect of Overall Treatment Time of Radiation Therapy on Local Control of T1-Stage Squamous Cell Carcinoma of the Glottis—Hayakawa, K, Mitsuhashi, N, et al. ..... 1545
Outcome of Pyriform Sinus Cancer: A Retrospective Institutional Review—Marks, SC, Lolachi, CM, et al. ..... 27
Postoperative Irradiation of Patients with Malignant Tumors of the Skull Base—Paulino, AC, Marks, JE, et al. ..... 880
Near-Total Laryngectomy May Be Successful Despite Postoperative Radiation Therapy—Terris, DJ, Fee, WE Jr, et al. ..... 1152
Prognostic Value of EGFR and TGF-α in Early Laryngeal Cancer Treated With Radiotherapy—Wen, Q-H, Miwa, T, et al. ..... 884
Swallowing Disorders in Head and Neck Cancer Patients Treated With Radiotherapy and Adjuvant Chemotherapy—Lazarus, CL, Logemann, JA, et al. ..... 1157
***Random Skin Flaps***
Effects of Macrophages on the Survival of Random Skin Flaps in Swine—Brewster, D, Cupp, C, et al. ..... 1094
Evaluation of Random Skin Flap Survival in a Porcine Model—Pratt, MF ..... 700
***Ranvier Nodes***
Impaired Ranvier Node Sodium-Potassium Adenosine Triphosphatase May Induce Facial Palsy—Kanoh, N, Sakagami, M ... 1180
***Reconstructive Surgery***
Evaluation of Random Skin Flap Survival in a Porcine Model—Pratt, MF ..... 700
***Recurrent Laryngeal Nerve***
Contraction Patterns of Intrinsic Laryngeal Muscles Induced by Orderly Recruitment in the Canine—Broniatowski, M, Vito, KJ, et al. ..... 1510
Intraoperative Electrophysiologic Monitoring of the Recurrent Laryngeal Nerve—Eisele, DW ..... 443
***Regulating Middle Ear Pressure***
Effects of Middle Ear Oxygen and Carbon Dioxide Tensions on Eustachian Tube Ventilatory Function—Shupak, A, Tabari, R, et al. ..... 221
***Retinoblastoma***
Loss of Heterozygosity in Retinoblastoma and p53 Suppressor Genes as a Prognostic Indicator for Head and Neck Cancer—Gleich, LL, Li, Y-Q, et al. ..... 1378
***Retinoic Acid***
Differential Effects of Retinoic Acid and N-(4-hydroxyphenyl)-retinamide on Head and Neck Squamous Cell Carcinoma Cells—Eicher, SA, Lotan, R ..... 1471
***Retrospectoscope***
Edmund Prince Fowler: Linking Basic and Clinical Science—Bailey, BJ ..... 1457
Harris P. Mosher Award: A Legacy of Excellence—Bailey, BJ .... 1317
Laryngology Education at the Turn of the Century—Bailey, BJ .. 797
LARYNGOSCOPE—The First 100 Years—Bailey, BJ ..... 527
Looking Back at a Century of Cocaine—Use and Abuse—Bailey, BJ ..... 681
Status of Otolaryngology in the Post–World War II Era. Part 1—Defining the Problem—Bailey, BJ ..... 1053
Status of Otolaryngology in the Post–World War II Era. Part 2—A Look to the Future—Bailey, BJ ..... 1191
What's All the Fuss About?: The LARYNGOSCOPE Pages Cause an International Incident—Bailey, BJ ..... 925
***Reversed Tracheal Segment***
Mucociliary Clearance Following Segmental Tracheal Reversal—Delaere, PR, Liu, Z, et al. ..... 450
***Rhinocerebral Mucormycosis***
Chronic Rhinocerebral Mucormycosis—Harrill, WC, Stewart, MG, et al. ..... 1292
***Rhinovirus Type 39***
Prechallenge Antibodies: Moderators of Infection Rate, Signs, and Symptoms in Adults Experimentally Challenged With Rhinovirus Type 39—Alper, CM, Doyle, WJ, et al. ..... 1298
***Rosai-Dorfman Disease***
Extranodal Rosai-Dorfman Disease of the Head and Neck—Goodnight, JW, Wang, MB, et al. ..... 253

## S

***Saccharin Test***
Asymmetry in the Nasal Mucociliary Transport Rate—Nuutinen, J ..... 1424
***Salivary Gland***
Detection of Epstein-Barr Virus in Salivary Gland Specimens from Sjögren's Syndrome Patients—Merne, MET, Syrjänen, SM ..... 1534
***Satchmo's Syndrome***
Orbicularis Oris Muscle Injury in Brass Players—Papsin, BC, Maaske, LA, et al. ..... 757
***Schwannomas***
Differentiation Between Schwannoma of the Vagus Nerve and Schwannoma of the Cervical Sympathetic Chain by Imaging Diagnosis—Furukawa, M, Furukawa, MK, et al. ..... 1548
***Scintigraphy***
Scintigraphic Quantification of Aspiration Reduction With the Passy-Muir Valve—Stachler, RJ, Hamlet, SL, et al. ..... 231
SPECT Gallium Scintigraphy in Malignant External Otitis: Initial Staging and Follow-up Case Reports—Stokkel, MPM, Boot, ICN, et al. ..... 338
***Screening Algorithms for OSA***
Screening for Obstructive Sleep Apnea in Patients Presenting for Snoring Surgery—Pradhan, PS, Gliklich, RE, et al. ..... 1393
***Secondary Laryngeal Neoplasms***
Metastatic Neoplasms to the Larynx: Report of Three Cases—Nicolai, P, Puxeddu, R, et al. ..... 851
***Self-Administered Odor Identification Test***
Development of the 12-Item Cross-Cultural Smell Identification Test (CC-SIT)—Doty, RL, Marcus, A, et al. ..... 353
***Sensorineural Hearing Loss***
Association of Mitochondrial DNA Deletions and Cochlear Pathology: A Molecular Biologic Tool—Seidman, MD, Ba., U, et al. ..... 777
Auditory Findings in Patients with Maternally Inherited Diabetes and Deafness Harboring a Point Mutation in the Mitochondrial Transfer $RNA^{Leu(UUR)}$ Gene—Yamasoba, T, Oka, Y,

et al. ..... 49
Bilateral Sensorineural Hearing Loss Associated With the Point Mutation in Mitochondrial Genome—Oshima, T, Ueda, N, et al. ..... 43
Familial Large Vestibular Aqueduct Syndrome—Griffith, AJ, Arts, HA, et al. ..... 960
Hearing Loss in Turner Syndrome—Sculerati, N, Oddoux, C, et al. ..... 992
Mastoid Surgery in the Only Hearing Ear—Perez de Tagle, JRV, Fenton, JE, et al. ..... 67
Stapedectomy in Profound Cochlear Loss—Glasscock, ME III, Storper, IS, et al. ..... 831
Sudden Bilateral Sensorineural Hearing Loss—Fetterman, BL, Luxford, WM, et al. ..... 1347
Temporal Bone Findings in Alzheimer's Disease—Sinha, UK, Saadat, D, et al. ..... 1
***Septal Mucosal Defects***
Turbinate Flap for Reconstruction of Nasal Septal Mucosal Defects—Berinstein, LCDR TH, Bernstein, P ..... 1047
***Sialoadenectomy***
Extracorporeal Electromagnetic Shock-Wave Lithotripsy for Salivary Gland Stones—Ottaviani, F, Capaccio, P, et al. ..... 761
***Silicone Rubber Sheeting***
Nasofrontal Duct Reconstruction With Silicone Rubber Sheeting for Inflammatory Frontal Sinus Disease: Analysis of 164 Cases—Amble, FR, Kern, EB, et al. ..... 809
***Sinonasal Malignancy***
Enhanced Magnetic Resonance Imaging and Subtraction Techniques in the Postoperative Evaluation of Craniofacial Resection for Sinonasal Malignancy—Lund, VJ, Lloyd, GAS, et al. .. 552
***Sinus Disease***
Gaseous Dynamics of the Rabbit Maxillary Sinus—Mikula, SK, Gannon, PJ, et al. ..... 152
***Sinus Histiocytosis with Massive Lymphadenopathy***
Extranodal Rosai-Dorfman Disease of the Head and Neck—Goodnight, JW, Wang, MB, et al. ..... 253
***Sinusitis***
Criteria for Success in Pediatric Functional Endonasal Sinus Surgery—Younis, RT, Lazar, RH ..... 869
Endonasal Endoscopic Surgery for Rhinogen Intraorbital Abscess: A Report of Six Cases—Wolf, SR, Göde, U, et al. ..... 105
Holmium:YAG Laser Endoscopic Sinus Surgery—A Randomized, Controlled Study—Metson, R ..... Suppl 77
Microsporidian Sinusitis in Patients with the Acquired Immunodeficiency Syndrome—Rossi, RM, Wanke, C, et al. ..... 966
Orbital Complications of Sinusitis in the Aspirin Triad Syndrome—McFadden, EA, Woodson, BT, et al. ..... 1103
Patterns of Sinusitis in Cystic Fibrosis—Gentile, VG, Isaacson, G 1005
Visual Loss Reversed After Treatment of Acute Bacterial Sinusitis—Galati, LT, Baredes, S, et al. ..... 148
***Sjögren's Syndrome***
Detection of Epstein-Barr Virus in Salivary Gland Specimens from Sjögren's Syndrome Patients—Merne, MET, Syrjänen, SM ..... 1534
***Skin Cancer***
Double V-Y Subcutaneous Island Flap—Parell, GJ, Becker, GD .. 1434
Metastatic Cutaneous Squamous Cell Carcinoma of the Head and Neck Region—Tavin, E, Persky, M ..... 156
***Skin Flap Viability***
Effects of Macrophages on the Survival of Random Skin Flaps in Swine—Brewster, D, Cupp, C, et al. ..... 1094
***Skin-Stretching Device***
Closure of the Fibula Free Flap Donor Site With the Sure-Closure™ Skin-Stretching Device—Futran, ND ..... 1487
***Skull Base Surgery***
Endoscopic Repair of Cerebrospinal Fluid Fistulae and Encephaloceles—Lanza, DC, O'Brien, DA, et al. ..... 1119
Postoperative Irradiation of Patients with Malignant Tumors of the Skull Base—Paulino, AC, Marks, JE, et al. ..... 880
***Sleep-Disordered Breathing***
Recognition and Surgical Management of the Upper Airway Resistance Syndrome—Newman, JP, Clerk, AA, et al. ..... 1089
***Sliding Genioplasty***
Use of Sliding Genioplasty for Treatment of Failed Chin Implants—Li, KK, Cheney, ML ..... 363
***Sling Stitch Endaural Meatoplasty***
Sling Stitch Endaural Meatoplasty—Tong, MCF, Liu, KC, et al. .. 1438
***SNAP Recording Device***
Objective Assessment of Snoring Before and After Laser-Assisted Uvulopalatoplasty—Walker, RP, Gatti, WM, et al. ..... 1372
***Snoring***
Characterization of Postoperative Edema Following Laser-Assisted Uvulopalatoplasty Using MRI and Polysomnography: Implications for the Outpatient Treatment of Obstructive Sleep Apnea Syndrome—Terris, DJ, Clerk, AA, et al. ..... 124
Identifying Obstructive Sleep Apnea in Patients Presenting for Laser-Assisted Uvulopalatoplasty—Vaidya, AM, Petruzzelli, GJ, et al. ..... 431
Laser-Assisted Uvulopalatoplasty for Obstructive Sleep Apnea—Mickelson, SA ..... 10
Laser-Assisted Uvulopalatoplasty: Postoperative Complications—Walker, RP, Gopalsami, C ..... 834
Lingual Tonsil Hypertrophy Producing Obstructive Sleep Apnea—Dündar, A, Özünlü, A, et al. ..... 1167
Objective Assessment of Snoring Before and After Laser-Assisted Uvulopalatoplasty—Walker, RP, Gatti, WM, et al. ..... 1372
Screening for Obstructive Sleep Apnea in Patients Presenting for Snoring Surgery—Pradhan, PS, Gliklich, RE, et al. ..... 1393
***Soft Tissue Reconstruction***
Extended Lateral Arm Free Flap for Head and Neck Reconstruction: The Yale Experience—Ross, DA, Thomson, JG, et al. ..... 14
***Spasmodic Dysphonia***
Alternating Unilateral Botulinum Toxin Type A (BOTOX®) Injections for Spasmodic Dysphonia—Koriwchak, MJ, Netterville, JL, et al. ..... 1476
Effects of Botulinum Toxin Type A Injections on Aerodynamic Measures of Spasmodic Dysphonia—Adams, SG, Durkin, LC, et al. ..... 296
Swallowing Side Effects of Botulinum Toxin Type A Injection in Spasmodic Dysphonia—Holzer, SES, Ludlow, CL ..... 86
***SPECT Gallium Scintigraphy***
SPECT Gallium Scintigraphy in Malignant External Otitis: Initial Staging and Follow-up Case Reports—Stokkel, MPM, Boot, ICN, et al. ..... 338
***Speech Disruption***
Laryngeal Muscle Activity During Speech Breaks in Adductor Spasmodic Dysphonia—Nash, EN, Ludlow, CL ..... 484
***Sphenopalatine Artery Ligation***
Sphenopalatine Artery Ligation: An Alternative to Internal Maxillary Artery Ligation for Intractable Posterior Epistaxis—Winstead, W ..... 667
***Spinal Accessory Nerve***
Preservation of the Spinal Accessory Nerve in Modified Neck Dissections—Deschler, DG, Singer, MI ..... 664
***Squamous Cell Carcinoma***
"Decadose" Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract I Histoculture Experiments—Robbins, KT, Hoffman, RM ..... 32
"Decadose" Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract II Clinical Studies—Robbins, KT, Storniolo, AM, et al. ..... 37
Differential Effects of Retinoic Acid and N-(4-hydroxyphenyl)-retinamide on Head and Neck Squamous Cell Carcinoma Cells—Eicher, SA, Lotan, R ..... 1471
Effect of Hyperbaric Oxygenation on Existing Oral Mucosal Carcinoma—McDonald, KR, Bradfield, JJ, et al. ..... 957
Effect of Overall Treatment Time of Radiation Therapy on Local Control of T1-Stage Squamous Cell Carcinoma of the Glottis—Hayakawa, K, Mitsuhashi, N, et al. ..... 1545
Elevated Arginine Vasopressin Levels in Squamous Cell Cancer of the Head and Neck—Talmi, YP, Wolf, GT, et al. ..... 317
Heterogeneity of Squamous Cell Carcinomas of the Head and Neck—Analysis of Tumor Biologic Factors and Proliferation Rates—Jacob, R, Welkoborsky, HJ, et al. ..... 1170
Incidence of Micrometastases in Neck Dissection Specimens Obtained from Elective Neck Dissections—van den Brekel, MWM, van der Waal, I, et al. ..... 987
Inhibition of Head and Neck Tumor Cell Growth With Arachidonic Acid Metabolism Inhibition—Ondrey, FG, Juhn, SK, et al. .. 129
Laser Photochemotherapy With Anthracytes on Cultured Human Squamous Cell Carcinoma Cells—Paiva, MB, Saxton, RE, et al. ..... 257
Metastatic Cutaneous Squamous Cell Carcinoma of the Head and Neck Region—Tavin, E, Persky, M ..... 156

Nasal Septal Squamous Cell Carcinoma: A Chart Review and Meta-analysis—DiLeo, MD, Miller, RH, et al. ..... 1218
Oral Lichen Planus and Its Association With Squamous Cell Carcinoma: An Update on Pathogenesis and Treatment Implications—Duffey, DC, Eversole, LR, et al. ..... 357
Prognostic Factors Affecting Outcome in Lower Gingival Carcinoma—Overholt, SM, Eicher, SA, et al. ..... 1335
Retrospective DNA Ploidy Analysis by Image and Flow Cytometry in Head and Neck Cancer—Epp, RA, Justice, WM, et al. ... 1306
***Stapedectomy***
Stapedectomy in the Pediatric Patient—Murphy, TP, Wallis, DL . 1415
Stapedectomy in Profound Cochlear Loss—Glasscock, ME III, Storper, IS, et al. ..... 831
***Stapedectomy Revision***
Necrosed Incus in Stapedectomy Revision—Seifi, AE ..... 511
***Sternohyoid Muscle Flap***
Tracheal Neovascularization: A Method Involving Mobilization of a Complete Tracheal Neovascularized Segment Using a Sternohyoid Muscle Flap—de Mello-Filho, FV, Mamede, RCM, et al. 81
***Stylomastoid Area***
Stylomastoid Area: Anatomic-Histologic Study and Surgical Approach— Holt, JJ ..... 396
***Subcutaneous Island Flap***
Double V-Y Subcutaneous Island Flap—Parell, GJ, Becker, GD .. 1434
***Subglottic Stenosis***
Laryngotracheal Reconstruction Using Microplates in a Porcine Model With Subglottic Stenosis—Mitskavich, MT, Rimell, FL, et al. ..... 301
***Subperiosteal Orbital Abscess***
Microbiology of Subperiosteal Orbital Abscess and Associated Maxillary Sinusitis—Brook, I, Frazier, EH ..... 1010
***Sudden Bilateral Sensorineural Hearing Loss***
Sudden Bilateral Sensorineural Hearing Loss—Fetterman, BL, Luxford, WM, et al. ..... 1347
***Superior Turbinate Pneumatization***
Pneumatized Superior Turbinate as a Cause of Referred Migraine Headache—Clerico, DM ..... 874
***Supracricoid Laryngectomy With Cricohyoidopexy***
Supracricoid Laryngectomy With Cricohyoidopexy (CHP) in the Treatment of Laryngeal Cancer: A Functional and Oncologic Experience—de Vincentiis, M, Minni, A, et al. ..... 1108
***Supracricoid Partial Laryngectomy***
Supracricoid Partial Laryngectomy After Failed Laryngeal Radiation Therapy—Laccourreye, O, Weinstein, G, et al. ..... 495
***Supraglottic Carcinoma***
Management of Carcinoma of the Supraglottic Larynx: Evolution, Current Concepts, and Future Trends—Myers, EN, Alvi, A .... 559
***Sure-Closure™***
Closure of the Fibula Free Flap Donor Site With the Sure-Closure™ Skin-Stretching Device—Futran, ND ..... 1487
***Surgical Learning Curve***
Learning Curve for Acoustic Tumor Surgery—Buchman, CA, Chen, DA, et al. ..... 1406
***Surgicel***
Surgicel in the Control of Post-Tonsillectomy Bleeding—Goodman, RS ..... 1044
***Swallowing***
Laryngeal Activity During Swallow, Phonation and the Valsalva Maneuver: An Electromyographic Analysis—McColloch, TM, Perlman, AL, et al. ..... 1351
Primary Closure of Pharyngeal Remnant After Total Laryngectomy and Partial Pharyngectomy: How Much Residual Mucosa Is Sufficient?—Hui, Y, Wei, WI, et al. ..... 490
Speech and Swallowing Rehabilitation Following Devastating Caustic Ingestion: Techniques and Indicators for Success—Shikowitz, MJ, Levy, J, et al. .....Suppl 78
Swallowing Disorders in Head and Neck Cancer Patients Treated With Radiotherapy and Adjuvant Chemotherapy—Lazarus, CL, Logemann, JA, et al. ..... 1157
Swallowing Side Effects of Botulinum Toxin Type A Injection in Spasmodic Dysphonia—Holzer, SES, Ludlow, CL ..... 86
***Synkinesis***
Patterns of Facial Nerve Synkinesis—Moran, CJ, Neely, JG ..... 1491

## T

***Telemedicine***
Application of Telemedicine Technology for Otorhinolaryngology Diagnosis—Crump, WJ, Driscoll, B ..... 595
***Temporal Bone Carcinoma***
Temporal Bone Carcinoma: Contemporary Perspectives in the Skull Base Surgical Era—Pensak, ML, Gleich, LL, et al. ..... 1234
***Temporal Bone Osteomata***
Histopathologic Review of Temporal Bone Exostoses and Osteomata—Fenton, JE, Turner, J, et al. ..... 624
***Temporal Bones***
Aggressive Papillary Tumors of the Temporal Bone: An Immunohistochemical Analysis in Tissue Culture—Levin, RL, Feghali, JG, et al. ..... 144
Development of the Facial Recess: Implications for Cochlear Implantation—Eby, TL .....Suppl 80
Histopathology of Idiopathic Chronic Recurrent Vertigo—Ishiyama, A, Ishiyama, GP, et al. ..... 1340
Neonatal Mesenchyme Temporal Bone Study: Typical Receding Pattern Versus Increase in Potter's Sequence—Piza, JE, Northrop, CC, et al. ..... 856
Residual Mesenchyme in Temporal Bones of Children—Kasemsuwan, K, Schachern, P, et al. ..... 1040
Submillimeter Magnetic Resonance Imaging of the Temporal Bone in Meniere's Disease—Welling, DB, Clarkson, MW, et al. 1359
Temporal Bone Findings in Alzheimer's Disease—Sinha, UK, Saadat, D, et al. ..... 1
***Thermal Effect***
*In Vitro* and *In Vivo* Determination of the Thermal Effect of Middle Ear Endoscopy—Bottrill, I, Perrault, EF Jr, et al. ..... 213
***Thermal Injury Patterns***
Thermal Injury Patterns and Tensile Strength of Canine Oral Mucosa after Carbon Dioxide Laser Incisions—Speyer, Ml, Joe, J, et al. ..... 845
***Thoracodorsal Transposition***
Microvascular Access in the Multiply Operated Neck: Thoracodorsal Transposition—Dolan, R, Gooey, J, et al. ..... 1436
***3-D Imaging Software***
Three-Dimensional Computed Imaging Using a Personal Computer for Nasal Surgery—Tsunoda, A, Komatusuzaki, A, et al. 584
***Thrombosis***
Communicating Vein and Its Use in the Radial Forearm Free Flap—Valentino, J, Funk, GF, et al. ..... 648
***Thymic Cysts in the Neck***
Cervical Thymic Cyst: Case Reports and Review of the Literature— Nguyen, Q, deTar, M, et al. ..... 247
***Thyroarytenoid Muscles***
Acid-Induced Laryngospasm in a Canine Model—Loughlin, CJ, Koufman, JA, et al. ..... 1506
Alternating Unilateral Botulinum Toxin Type A (BOTOX®) Injections for Spasmodic Dysphonia—Koriwchak, MJ, Netterville, JL, et al. ..... 1476
***Thyroidectomy***
Intraoperative Electrophysiologic Monitoring of the Recurrent Laryngeal Nerve—Eisele, DW ..... 443
***Thyroplasty Type I***
Longitudinal Evaluation of Vocal Function Following Thyroplasty Type I in the Treatment of Unilateral Vocal Paralysis—Lu, F-L, Casiano, RR, et al. ..... 573
MRI Evaluation of Vocal Fold Paralysis Before and After Type I Thyroplasty—Bryant, NJ, Gracco, LC, et al. ..... 1386
Quantitative Criteria for Predicting Thyroplasty Type I Outcome—Omori, K, Slavit, DH, et al. ..... 689
***Tissue Expanders***
Tissue Expander Insertion Through a Mini Incision—Seikaly, H, Calhoun, KH, et al. ..... 908
***Tonsillar Metastasis***
Malignant Melanoma Metastatic to the Tonsil—Aydogan, LB, Myers, JN, et al. ..... 313
***Tonsillectomy***
Ambulatory Tonsillectomy and Adenoidectomy—Gabalski, EC, Mattucci, KF, et al. ..... 77
Surgicel in the Control of Post-Tonsillectomy Bleeding—Goodman, RS ..... 1044
***Topical Antifungal Drugs***
Antifungal Activity Against Allergic Fungal Sinusitis Organisms—Bent JP III, Kuhn, FA ..... 1331
***Topical Cocaine***
Absorption of Topical Cocaine in Rhinologic Procedures CDR(sel)—Greinwald JH Jr, Holtel, CDR MR ..... 1223

***Topical Oral Pilocarpine***
Determination of the Efficacy of Topical Oral Pilocarpine for Postirradiation Xerostomia in Patients With Head and Neck Carcinoma—Hamlar, DD, Schuller, DE, et al. ..... 972
***Topical Vasodilating Agents***
Effect of Topical Vasodilating Agents on Microvascular Vessel Diameter in the Rat Model—Kerschner, JE, Futran, ND ..... 1429
***Total Laryngectomy***
Primary Closure of Pharyngeal Remnant After Total Laryngectomy and Partial Pharyngectomy: How Much Residual Mucosa Is Sufficient?—Hui, Y, Wei, WI, et al. ..... 490
Vocal Capacities in Esophageal and Tracheoesophageal Speakers—Max, L, Steurs, W, et al. ..... 93
***Tracheal Neovascularization***
Tracheal Neovascularization: A Method Involving Mobilization of a Complete Tracheal Neovascularized Segment Using a Sternohyoid Muscle Flap—de Mello-Filho, FV, Mamede, RCM, et al. ..... 81
***Tracheal Stenosis***
Endoscopic Treatment of Tracheal Stenosis Using the Carbon Dioxide Laser and the Gianturco Stent: Indications and Results—Remacle, M, Lawson, G, et al. ..... 306
***Tracheobronchography***
Tracheobronchography in Children—Deutsch, ES, Smergel, E, et al. ..... 1248
***Tracheoesophageal Fistulae***
Staged Repair of Cervical Tracheoesophageal Fistulae—Shaari, CM, Biller, HF ..... 1398
***Tracheoesophageal Puncture***
Near-Total Laryngectomy May Be Successful Despite Postoperative Radiation Therapy—Terris, DJ, Fee, WE Jr, et al. ..... 1152
***Tracheostoma***
Tracheostoma in Relation to Prosthetic Voice Rehabilitation—Verschuur, HP, Gregor, RT, et al. ..... 111
***Training Requirements in Otolaryngology***
Learning Curve for Acoustic Tumor Surgery—Buchman, CA, Chen, DA, et al. ..... 1406
***Transcatheter Arterial Embolization***
Angiography and Transcatheter Arterial Embolization of Vascular Injuries of the Face and Neck—Sclafani, AP, Sclafani, SJA ..... 168
***Transcochlear Exposures***
Indications and Variations of Transcochlear Exposure of the Ventral Brainstem—Arriaga, LTC MA, Gorum, MAJ M ..... 639
***Transforming Growth Factor-alpha***
Prognostic Value of EGFR and TGF-α in Early Laryngeal Cancer Treated With Radiotherapy—Wen, Q-H, Miwa, T, et al. ..... 884
***Transforming Growth Factor-β1***
Regulation of Transforming Growth Factor-β1–Mediated Apoptosis in Head and Neck Squamous Cell Carcinoma—Duffey, DC, Calcaterra, TC, et al. ..... 889
***Translabyrinthine Surgery***
Preventive Management of Cerebrospinal Fluid Leak in Translabyrinthine Surgery—Meyerson, LR, Monsell, EM, et al. ..... 610
***Transpharyngeal Approach***
Transpharyngeal Approach to Base of Tongue Tumors: A Comparative Study—Nasri, S, Oh, Y, et al. ..... 945
***Trephination***
Prediction of the Clinical Outcome of Acute Frontal Sinusitis With Ventilation Measurement of the Nasofrontal Duct After Trephination: A Long-Term Follow-up Study—Sipilä, J, Suonpää, J, et al. ..... 292
***Triosite Implants***
Triosite Implants and Fibrin Glue in the Treatment of Atrophic Rhinitis: Technique and Results—Bertrand, B, Doyen, A, et al. 652
***True Vocal Fold Cysts***
Value of Videostroboscopic Parameters in Differentiating True Vocal Fold Cysts From Polyps—Shohet, JA, Courey, MS, et al. . 19
***Tuberculosis***
Laryngeal Tuberculosis in HIV-Infected Patients: A difficult Diagnosis—Singh, B, Balwally, AN, et al. ..... 1238
***Tubotympanic Disease***
Mastoid Surgery in the Only Hearing Ear—Perez de Tagle, JRV, Fenton, JE, et al. ..... 67
***Tumor Heterogeneity***
Heterogeneity of Squamous Cell Carcinomas of the Head and Neck—Analysis of Tumor Biologic Factors and Proliferation Rates—Jacob, R, Welkoborsky, HJ, et al. ..... 1170
***Tumor Markers***
Elevated Arginine Vasopressin Levels in Squamous Cell Cancer of the Head and Neck—Talmi, YP, Wolf, GT, et al. ..... 317
***Tumor Suppressor Genes***
Loss of Heterozygosity in Retinoblastoma and p53 Suppressor Genes as a Prognostic Indicator for Head and Neck Cancer—Gleich, LL, Li, Y-Q, et al. ..... 1378
***Turbinate Flap***
Turbinate Flap for Reconstruction of Nasal Septal Mucosal Defects—Berinstein, LCDR TH, Bernstein, P ..... 1047
***Turner Syndrome***
Hearing Loss in Turner Syndrome—Sculerati, N, Oddoux, C, et al. ..... 992
***Two-Hole Ossiculoplasty***
Two-Hole Ossiculoplasty Technique—de Varebeke, SJ, Govaerts, PJ, et al. ..... 507
***Tympanic Membrane Perforation***
Effect of Tympanic Membrane Perforation Size on Umbo Velocity in the Rat—Bigelow, DC, Swanson, PB, et al. ..... 71
Effects of Keratinocyte Growth Factor on Healing of Tympanic Membrane Perforations—Clymer, MA, Schwaber, MK, et al. ..... 290
Structural Characterization of Persistent Tympanic Membrane Perforations in Man—Spandow, O, Hellström, S, et al. ..... 346
***Tympano-ossicular Homograft***
Risk of Transmission of Human Immunodeficiency Virus Infection During Tympano-Ossicular Homograft: An Experimental Study—Meylan, PRA, Duscher, A, et al. ..... 334
***Tympanostomy***
Laser-Assisted Tympanostomy—Silverstein, H, Kuhn, J, et al. .. 1067
Tympanostomies With Tubes: The Parent Perspective—Urben, SL, Nichols, RD ..... 1269
***Type 1 Waardenburg Syndrome***
Genotype-Phenotype Correlations in Type 1 Waardenburg Syndrome—Lalwani, AK, Mhatre, AN, et al. ..... 895

## U

***Umbo Velocity***
Effect of Tympanic Membrane Perforation Size on Umbo Velocity in the Rat—Bigelow, DC, Swanson, PB, et al. ..... 71
***Unilateral Vocal Paralysis***
Longitudinal Evaluation of Vocal Function Following Thyroplasty Type I in the Treatment of Unilateral Vocal Paralysis—Lu, F-L, Casiano, RR, et al. ..... 573
***Universal Precautions***
Safety Awareness for the Otolaryngologist Caring for the HIV-Positive Patient—Kantu, S, Lee, D, et al. ..... 982
***Upper Aerodigestive Tract***
"Decadose" Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract I Histoculture Experiments—Robbins, KT, Hoffman, RM ..... 32
"Decadose" Effects of Cisplatin on Squamous Cell Carcinoma of the Upper Aerodigestive Tract II Clinical Studies—Robbins, KT, Storniolo, AM, et al. ..... 37
***Upper Airway Polyps***
Experimentally Induced Polyps in the Sinus Mucosa: A Structural Analysis of the Initial Stages—Norlander, T, Westrin, KM, et al. ..... 196
***Upper Airway Resistance Syndrome***
Recognition and Surgical Management of the Upper Airway Resistance Syndrome—Newman, JP, Clerk, AA, et al. ..... 1089
***Upper Respiratory Epithelium***
Immunohistochemical Localization of Nitric Oxide Synthase Activity in Upper Respiratory Epithelium—Rosbe, KW, Minns, JW, et al. ..... 1075
***Upper Respiratory Tract Infections***
Prechallenge Antibodies: Moderators of Infection Rate, Signs, and Symptoms in Adults Experimentally Challenged With Rhinovirus Type 39—Alper, CM, Doyle, WJ, et al. ..... 1298
***Uvula Mucosa***
Inflammation in the Uvula Mucosa of Patients with Obstructive Sleep Apnea—Sekosan, M, Zakkar, M, et al. ..... 1018

## V

***Vagus Nerve***
Differentiation Between Schwannoma of the Vagus Nerve and Schwannoma of the Cervical Sympathetic Chain by Imaging Diagnosis—Furukawa, M, Furukawa, MK, et al. ..... 1548
***Valsalva Maneuver***
Laryngeal Activity During Swallow, Phonation and the Valsalva Maneuver: An Electromyographic Analysis—McColloch, TM, Perlman, AL, et al. ..... 1351
***Vascular Grafting***
Expanded Polytetrafluoroethylene Augmentation of the Lower Face— Sherris, DA, Larrabee, WF Jr ..... 658
***Vasoconstrictors***
Optimal Concentration of Epinephrine for Vasoconstriction in Neck Surgery—Dunlevy, TM, O'Malley, TP, et al. ..... 1412
***Ventral Brainstem Surgery***
Indications and Variations of Transcochlear Exposure of the Ventral Brainstem—Arriaga, LTC MA, Gorum, MAJ M ..... 639
***Vertigo***
Comparison of Labyrinthectomy and Vestibular Neurectomy in the Control of Vertigo—Gacek, RR, Gacek, MR ..... 225
Galvanic-Induced Postural Movements As a Test of Vestibular Function in Humans—Cass, SP, Redfern, MS, et al. ..... 423
Histopathology of Idiopathic Chronic Recurrent Vertigo—Ishiyama, A, Ishiyama, GP, et al. ..... 1340
*In Vitro* and *In Vivo* Determination of the Thermal Effect of Middle Ear Endoscopy—Bottrill, I, Perrault, EF Jr, et al. ..... 213
Outcome of Vestibular Nerve Section for Intractable Vertigo: The Patient's Point of View—Reid, CB, Eisenberg, R, et al. ..... 1553
Positional Maneuver for Treatment of Horizontal-Canal Benign Positional Vertigo—Lempert, T, Tiel-Wilck, K ..... 476
Syndromal Vertigo Identified by Magnetic Resonance Imaging and Angiography—Welsh, LW, Welsh, JJ, et al. ..... 1144
***Vestibular Aqueduct***
Familial Large Vestibular Aqueduct Syndrome—Griffith, AJ, Arts, HA, et al. ..... 960
***Vestibular Function***
Galvanic-Induced Postural Movements As a Test of Vestibular Function in Humans—Cass, SP, Redfern, MS, et al. ..... 423
***Vestibular Nerve Section***
Outcome of Vestibular Nerve Section for Intractable Vertigo: The Patient's Point of View—Reid, CB, Eisenberg, R, et al. ..... 1553
***Vestibular Neurectomy***
Comparison of Labyrinthectomy and Vestibular Neurectomy in the Control of Vertigo—Gacek, RR, Gacek, MR ..... 225
***Vestibular Neuritis***
Histopathology of Idiopathic Chronic Recurrent Vertigo—Ishiyama, A, Ishiyama, GP, et al. ..... 1340
***Vestibular Schwannoma***
Growth Rate Characteristics of Acoustic Neuromas Associated With Neurofibromatosis Type 2—Abaza, MM, Makariou, E, et al. ..... 694
Surgical Treatment of Acoustic Neuroma (Vestibular Schwannoma) in the United States: Report from the Acoustic Neuroma Registry—Wiegand, DA, Ojemann, RG, et al. ..... 58
***Vestibulocerebellar regions***
Evaluation of the Vestibular System by Magnetic Resonance Angiography—Welsh, LW, Welsh, JJ, et al. ..... 1138
***Vestibulo-ocular Reflex***
Oculocephalic Response in the Evaluation of the Dizzy Patient—Harvey, SA, Wood, DJ ..... 6
***Videostrobolaryngoscopy***
Quantification of Videostrobolaryngoscopic Findings—Measurements of the Normal Glottal Cycle—Woo, P ..... Suppl 79
***Videostroboscopy***
Value of Videostroboscopic Parameters in Differentiating True Vocal Fold Cysts From Polyps—Shohet, JA, Courey, MS, et al. . 19
***Visual Loss***
Visual Loss Reversed After Treatment of Acute Bacterial Sinusitis—Galati, LT, Baredes, S, et al. ..... 148
***Vocal Capacities***
Vocal Capacities in Esophageal and Tracheoesophageal Speakers—Max, L, Steurs, W, et al. ..... 93
***Vocal Cord Injection***
Vocal Cord Injection With Autogenous Fat: A Long-term Magnetic Resonance Imaging Evaluation—Brandenburg, JH, Unger, JM, et al ..... 174
***Vocal Cord Paralysis***
Cricoarytenoid Joint Mobility After Chronic Vocal Cord Paralysis—Gacek, M, Gacek, RR ..... 1528
Experimental Study on Reinnervation of Vocal Cord Adductors With the Ansa Cervicalis—Zheng, H, Li, Z, et al. ..... 1516
Minimally Invasive Laser Surgery for the Treatment of Bilateral Vocal Cord Paralysis—Bigenzahn, W, Hoefler, H ..... 791
Update: Laryngeal Reinnervation for Unilateral Vocal Cord Paralysis With the Ansa Cervicalis—Zheng, H, Li, Z, et al. ..... 1522
***Vocal Fold***
Intraoperative Identification of the Laryngeal Nerves Using Laryngeal Electromyography—Mermelstein, M, Nonweiler, R, et al. ..... 752
MRI Evaluation of Vocal Fold Paralysis Before and After Type I Thyroplasty—Bryant, NJ, Gracco, LC, et al. ..... 1386
Quantification of Videostrobolaryngoscopic Findings—Measurements of the Normal Glottal Cycle—Woo, P ..... Suppl 79
***Vocal Function***
Longitudinal Evaluation of Vocal Function Following Thyroplasty Type I in the Treatment of Unilateral Vocal Paralysis—Lu, F-L, Casiano, RR, et al. ..... 573
Quantitative Criteria for Predicting Thyroplasty Type I Outcome—Omori, K, Slavit, DH, et al. ..... 689
***Voice Preservation***
Easier Technique for Near-Total Laryngectomy—Moñux, A, Rabanal, I, et al. ..... 235
***Voice Rehabilitation***
Tracheostoma in Relation to Prosthetic Voice Rehabilitation—Verschuur, HP, Gregor, RT, et al. ..... 111

## W

***Waardenburg Syndrome***
Genotype-Phenotype Correlations in Type 1 Waardenburg Syndrome—Lalwani, AK, Mhatre, AN, et al. ..... 895
***Wound Healing***
Keloid Excision and Recurrence Prophylaxis Via Intradermal Interferon-Gamma Injections: A Pilot Study—Broker, BJ, Rosen, D, et al. ..... 1497
Thermal Injury Patterns and Tensile Strength of Canine Oral Mucosa after Carbon Dioxide Laser Incisions—Speyer, MI, Joe, J, et al. ..... 845
Wound Healing: Effects of Closing Tension, Zyplast™, and Platelet-Derived Growth Factor—Tzikas, MAJ TL, Burgess, LTC LPA, et al. ..... 322

## X

***Xerostomia***
Determination of the Efficacy of Topical Oral Pilocarpine for Postirradiation Xerostomia in Patients With Head and Neck Carcinoma—Hamlar, DD, Schuller, DE, et al. ..... 972

## Z

***Zenker's Diverticulum***
Endoscopic Staple-Assisted Esophagodiverticulostomy for Zenker's Diverticulum—Scher, RL, Richtsmeier, WJ ..... 951